BEYOND CAR AUDIO

TEAM DLS

Car Sound Competitions. A lot of people find a great interest in building good sound in their vehicles, and many of these also compete in car sound. There are two major organizations, IASCA and EMMA, which arranges competitions around the world. They compete in sound quality or SPL. Here are some nice photos of Team DLS competition cars.
For more photos, visit our website www.dls.se and the Team DLS photo album.

TABLE OF CONTENTS

DLS GOES FOR KNOCK OUT 05

ULTIMATE 06

- NOBELIUM SERIES 08
- NOBELIUM SUBWOOFERS 09
- IRIDIUM SERIES 10
- IRIDIUM SUBWOOFERS 11
- US SERIES 12
- UP SERIES 13
- SUBWOOFERS SP SERIES 14
- ULTIMATE AMPLIFIERS 16

REFERENCE 20

- R-SERIES 22
- RW SUBWOOFERS 23
- COAXIAL AND MS SERIES 24
- REFERENCE SUBWOOFERS 25
- PS/RS SERIES 26
- DLS ACTIVE & PASSIVE SUBWOOFER BOXES 27
- REFERENCE AMPLIFIERS 29

PERFORMANCE 32

- PERFORMANCE SUBWOOFERS AND CLASSIC SUBWOOFERS OPEN AIR 34
- KW SUBWOOFERS AND CLASSIC K SERIES 35
- PERFORMANCE B AND C SERIES 36
- PERFORMANCE COAXIAL 37
- PERFORMANCE AMPLIFIERS 39

BEYOND CAR AUDIO 42

ACCESSORIES 46

HOME AUDIO 50

WORLD CHAMPION
W.S.U.
WORLD
SPORTS
BOXING
UNION
W.S.U.

DLS GOES FOR KNOCK OUT

IASCA car sound world finals / European finals. At the 2006 International Sound Quality Competition in the USA, DLS did it again. We knocked out our competitors taking both the first, second and fifth place. At the IASCA USA Finals, DLS cars took 4 First places. At the 2006 European finals in Bern, Switzerland, DLS took Five First places, Five Seconds and three Thirds.

At the 2007 European finals in Bern, Switzerland, DLS took Five First places, two Seconds and threeThirds. At the 2007 IASCA world finals DLS cars were both first and second in the International Sound Quality Competition.

The 2006 / 2007 prize winners in IASCA European and world finals, plus EMMA european finals, all using DLS equipment.

CLASS	PLACE	NAME	COMPETITION	COUNTRY
2007:				
ISQC	1st	Eddie De Jesus	IASCA world finals	USA
ISQC	2nd	Keith Doney	IASCA world finals	USA
SQ - Amateur Street	2nd	Carlos Arevalo	IASCA world finals	USA
SQ Ultimate Pro	2nd	Eddie Dejesus	IASCA world finals	USA
Street Semi Pro	1st	Anthony Smuyth	IASCA european finals	Ireland /UK
Street Pro	1st	Andy Blanch	IASCA European finals	Ireland /UK
Master Unlimited	1st	Per Söder	EMMA Eurofinals	Sweden
Advanced 7 channels	1st	Luka Slokar	EMMA Eurofinals	Slovenia
Advanced 5 channels	1st	Henrik Arvidsson	EMMA Eurofinals	Sweden
MM Expert One Class	1st	Litvin Gennady	EMMA Eurofinals	Russia
Master 5 channels	1st	Erik Tryka	EMMA Eurofinals	Germany
Advanced 7 channels	2nd	Arkadiusz Kowalewski	EMMA Eurofinals	Poland
EMMA racing	2nd	Manuel Hoffman	EMMA Eurofinals	Germany
Master 5 channels	3rd	Viktor Ivanov	EMMA Eurofinals	Russia
Master 7 channels	3rd	Olli Finer	EMMA Eurofinals	Finland
Experienceed 3 channels	3rd	Jarmo Lötjönen	EMMA Eurofinals	Finland
2006:				
Ultimate PRO	1st	Phattarapong Ongsiriwattana	IASCA world finals	Thailand
Pro Street	1st	Eddie De Jesus	IASCA world finals	USA
Semi Pro Street	1st	Leonard Day	IASCA world finals	USA
Rookie	1st	Keith Chu	IASCA world finals	USA
ISQC	1st	Phattarapong Ongsiriwattana	IASCA world finals	Thailand
ISQC	2nd	Eddie De Jesus	IASCA world finals	USA
ISQC	5th	Keith Doney	IASCA world finals	USA
PRO 600	1st	Igor Miroshnichenko	European EMMA finals	Russia
Expert Sound Only	1st	Per Söder	European EMMA finals	Sweden
Expert unlimited	1st	Jaka Seles	European EMMA finals	Slovenia
Amateur 600	1st	Luka Slokar	European EMMA finals	Slovenia
Multimedia PRO	1st	Viktor Shitkov	European EMMA finals	Russia
Amateur 4000	2nd	Alexander Muhling	European EMMA finals	Germany
ESPL Pro 2 woofer	2nd	Samir Handanagic	European EMMA finals	Slovenia
Amateur Sound only	2nd	Henrik Arvidsson	European EMMA finals	Sweden
PRO 600	2nd	Patric Persson	European EMMA finals	Sweden
PP One class	2nd	Harri Hellman	European EMMA finals	Finland
PRO 600	3rd	Vadim Ljutov	European EMMA finals	Estonia
PRO unlimited	3rd	Martin Poljsak	European EMMA finals	Slovenia
Rookie 2000	3rd	Heiki Eelma	European EMMA finals	Estonia
Best of installation		Jaka Seles	European EMMA finals	Slovenia
Best of Dolby MM		Viktor Shitkov	European EMMA finals	Russia

Audio for life

ULTIMATE

”The Ultimate speaker series offers excellent performance thanks to designs, which focus on outstanding sound quality and ease of installation. Our goal with the Ultimate series was to design speakers with performance that surpassed nearly everything else”

Sound is a subjective science. If we relied on measuring instruments alone in development, we wouldn’t come any further than the range of our instruments. We want to go beyond that.

To achieve our goal in creating the Ultimate speaker series, we have developed several solutions that are unique when it comes to material selection, magnet design and cone suspension. Clear and clean high frequency response and transparency with textile soft dome tweeters. Neodymium magnets ensure high power handling. The result is an incredibly good speaker line, which has proven itself in car audio competitions around the world.

THE BEST SPEAKER WE EVER DONE

FEATURES:

- Die cast basket
- Aluminum cone
- Rubber surround
- 3"/ 75 mm voice coil made of flat aluminum wire for maximum tightness
- Neodymium magnets
- Screw terminals (not 5.2 model)
- Hi-grade filters with ribbon coils, polypropylene capacitors and metal oxide resistors
- 28 mm tweeter with first rate textile dome and die cast basket

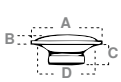
Ultimate Nobelium – when the Iridium 6.2 received the EISA award as "Mobile loudspeaker of the year 2004-2005", our engineers were encouraged to create something even better. After 1 years work the Nobelium line was ready for the public. This is now the top end of the current line of DLS ULTIMATE speaker systems. The new die cast basket let the speaker breathe and the aluminium cone makes the sound clear and crispy. You can enjoy listening for long hours, at high levels with great pleasure.

The exceptional performance of this speaker is a result of unique driver technology and advanced crossover design.

They come in 5,25", 6,5" and 8" sizes as 2-way systems. They use a 3" voice coil, neodymium magnet system and a cone made of aluminium.

The tweeter is a 28 mm dome using a first-rate textile material. The crossover uses coils made of flat copper foil, these coils are normally used only in the most exclusive home audio speaker sets. All this together creates a unique sound quality that can't be described – it must be heard. We believe that this speaker line will set a new standard in the world of Car Audio.

ULTIMATE NOBELIUM SERIES

MODEL		NOBELIUM 5.2 (2-WAY SYSTEM)	NOBELIUM 6.2 (2-WAY SYSTEM)	NOBELIUM 8.2 (2-WAY SYSTEM)
BASS		5.25" (13 cm)	6.5" (16.5 cm)	8" (20 cm)
TWEETER		NO1 (28 mm / 1.1")	NO1 (28 mm / 1.1")	NO1 (28 mm / 1.1")
POWER		100 W RMS / 160 W MAX	100 W RMS / 160 W MAX	100 W RMS / 160 W MAX
SENSITIVITY		91 dB	91 dB	91 dB
MAGNET		85 mm / 3.35"	85 mm / 3.35"	85 mm / 3.35"
	A	130 mm / 5.12"	165 mm / 6.5"	210 mm / 8.3"
	B	20 mm / 0.8"	25 mm / 1"	25 mm / 1"
	C	62 mm / 2.44"	65 mm / 2.56"	70 mm / 2.75"
	D	120 mm / 4.72"	140 mm / 5.51"	180 mm / 7.1"

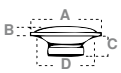
**Nobelium is a radioactive metal with atomic number 102. It is named after the Swedish scientist Alfred Nobel*

NOBELIUM SUBWOOFERS - **”SIMPLY THE BEST”**

After testing the first samples of these new subwoofers our test panel was amazed. The Nobelium subwoofers are the perfect match to the Nobelium 2-way kits. These subs are capable of playing very loud but still very musical and controlled.

The Nobelium subwoofers have a strong and robust lightweight aluminium cone with rubber surround. The die cast aluminium basket, and the specially designed grille has the same dark grey colour as the rest of the series. Powerful dual magnets with rubber cover. A large number of ventilation openings provide ventilation behind the centring spider. All made to give the voice coil o good cooling. Dual 4 ohm voice coils with a high power handling capacity up to 1 kilowatt. For both sealed and vented enclosures. In 10”, 12” and 15” sizes.

ULTIMATE NOBELIUM SUBWOOFERS

MODEL		NOBELIUM 10i (10”, 25 cm)	NOBELIUM 12i (12”, 30 cm)	NOBELIUM 15i (15”, 37.5 cm)
FREQ. RANGE / IMP.		25 – 2500 Hz / 2x4 ohm	25 – 2500 Hz / 2x4 ohm	15 – 2500 Hz / 2x4 ohm
POWER		500 W RMS / 800 W MAX	600 W RMS / 1000 W MAX	600 W RMS / 1000 W MAX
SENSITIVITY		83 dB	88.5 dB	90 dB
WEIGHT		9.8 kg / 21.6 lb	12.7 kg / 28 lb	13.8 kg / 30.4 lb
MAGNET		180 mm / 7.08” / 180 oz	220 mm / 8.7” / 180 oz	220 mm / 8.7” / 180 oz
FS / QTS / VAS (for dual V/C)		41 Hz / 0.57 / VAS 12l, 0.42 ft³	33.8 Hz / 0.39 / VAS 53l, 1.88 ft³	34.7 Hz / 0.67 / VAS 130.7l, 4.6 ft³
	A	266 mm / 10.47”	313 mm / 12.32”	390 mm / 15.35”
	B	25 mm / 1”	25 mm / 1”	25 mm / 1”
	C	150 mm / 5.91”	153 mm / 6”	176 mm / 6.93”
	D	236 mm / 9.29”	282 mm / 11.1”	360 mm / 14.17”

EXPLORE THE UNKNOWN

FEATURES:

- Non-press paper cone
- Die cast basket
- Rubber surround
- 3"/ 75 mm voice coil made of flat aluminum wire for maximum tightness
- Neodymium magnet
- Hi-grade filter with ribbon coils, polypropylene capacitors and metal oxide resistors
- 28 mm tweeters with first rate textile dome and die cast basket

This is one of the top-end speakers in the current line of the DLS ULTIMATE speaker systems. The sound is dynamic, clean and unrestrained. You can enjoy listening for long hours, at high levels with great pleasure.

The exceptional performance of this speaker is a result of unique driver technology and advanced crossover design.

They come in 6,5" and 8" sizes as 2- or 3-way systems. They use a 3" voice coil, neodymium magnet system and a cone made of non-pressed paper. The midrange in the 3-ways is a 3" dome using a first-rate textile material. Some of the crossover uses ribbon coils made of flat copper foil.

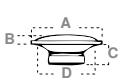
All this together creates a unique sound quality that can't be described – it must be heard. You will be able to hear new details in the music.

The DLS Iridium 6.2 received the 2004 EISA* award as "MOBILE LOUDSPEAKER of the year 2004-2005".

**EISA, European Imaging and Sound Association, is representing nearly 50 leading electronic magazines from over 18 European countries.*

The Iridium i-models are improved. They all use die cast basket in both the mid bass drivers and tweeters for improved sound and mechanical stability.

ULTIMATE IRIDIUM SERIES – IMPROVED MODELS WITH DIE CAST BASKETS

MODEL		IRIDIUM 6.2i (2-way system)	IRIDIUM 8.2i (2-way system)	IRIDIUM 6.3i (3-way system)	IRIDIUM 8.3i (3-way system)
BASS		6,5" (16,5 cm)	8" (20 cm)	6,5" (16,5 cm)	8" (20 cm)
TWEETER/MID		IR1i (28 mm / 1,1")	IR1i (28 mm / 1,1")	IR1i tweeter, Iridium 3 mid	IR1i tweeter, Iridium 3 mid
POWER		100 W RMS/160 W MAX	100 W RMS/160 W MAX	100 W RMS/160 W MAX	100 W RMS/160 W MAX
SENSITIVITY		91 dB	91 dB	91 dB	91 dB
MAGNET		85 MM / 3.35"	85 mm / 3.35"	85 mm / 3.35"	85 mm / 3.35"
	A	165 mm / 6,5"	210 mm / 8,3"	165 mm / 6,5"	210 mm / 8,3"
	B	25 mm / 1"	25 mm / 1"	25 mm / 1"	25 mm / 1"
	C	65 mm / 2,56"	70 mm / 2,75"	65 mm / 2,56"	70 mm / 2,75"
	D	140 mm / 5,51"	180 mm / 7,1"	140 mm / 5,51"	180 mm / 7,1"

IRIDIUM 15 – TOP GUN IN GERMANY

IRIDIUM 15 WAS TOP TESTED IN THE GERMAN MAGAZINE AUTO-HIFI NO. 4-2005.

Category: "Absolute Spitzenklasse"

The magazine wrote:

"DLS has succeeded in creating a magnificent subwoofer with the Ultimate Iridium 15 – it kicks out power, sounds amazing and entirely justifies its high price."

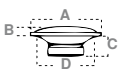
AS CLOSE AS YOU CAN
GET TO THE PERFECT BASS

Some people just want to get as close as possible to the perfect sound. With the Iridium 2-and 3-way systems we have showed that DLS are capable of making the best possible component kits for car use, and now, with the IRIDIUM subwoofers, the series is complete.

We combined all our experiences from the UR and SP-series subwoofers when we decided to make the best possible subwoofers, and out came the new Iridium subwoofers. These subs are capable of playing very loud but still with a musical and controlled bass that made the UR-series famous worldwide.

The Iridium subwoofers have a strong and robust lightweight paper cone with rubber surround. The die cast aluminium basket, and the specially designed grille has the same dark grey shade as the rest of the series. Powerful dual magnets with rubber cover. Ventilated dual 4 ohm voice coils with a high power handling capacity up to 1 kilowatt. For both sealed and vented enclosures. Available in 10", 12" and 15" sizes as Iridium 10i, Iridium 12i and Iridium 15.

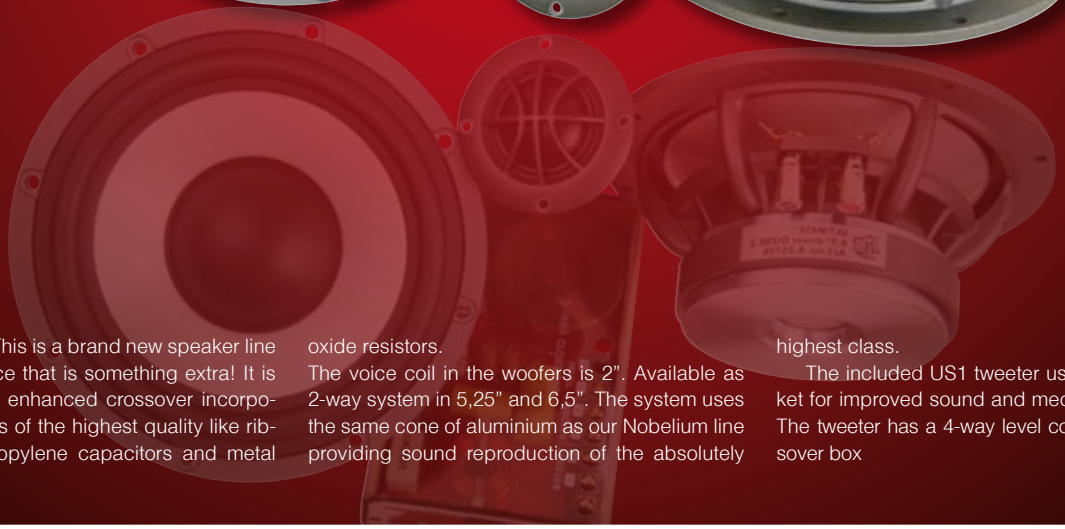
IRIDIUM SUBWOOFERS

MODEL		**IRIDIUM 10i** (10", 25 cm)	**IRIDIUM 12i** (12", 30 cm)	**IRIDIUM 15** (15", 37,5 cm)
FREQ. RANGE / IMP.		25 - 2500 Hz / 2x4 ohm	20 - 2500 Hz / 2x4 ohm	15 - 2500 Hz / 2x4 ohm
POWER		500 W RMS / 800 W MAX	600 W RMS / 1000 W MAX	600 W RMS / 1000 W MAX
SENSITIVITY		84 dB	87,3 dB	89,5 dB
WEIGHT		9.8 kg / 21.6 lb	12.7 kg / 28 lb	13.4 kg / 29.54 lb
MAGNET		180 mm / 7.08" / 180 oz	220 MM / 8.7" / 180 oz	220 mm / 8.7" / 180 oz
FS / QTS / VAS (dual V/C)		42.3 Hz / 0.47 / VAS 12l, 0.42 ft³	30.2 Hz / 0.41 / VAS 58.8l, 2,08 ft³	33 Hz / 0.35 / VAS 63.54l, 2.24 ft³
	**A**	266 mm / 10.47"	313 mm / 12.32"	390 mm / 15.35"
	B	25 mm / 1"	25 mm / 1"	25 mm / 1"
	C	150 mm / 5.91"	153 mm / 6"	176 mm / 6.93"
	D	236 mm / 9.29"	282 mm / 11.1"	360 mm / 14.17"

CLOSE TO PERFECTION

FEATURES:

- Aluminium cone body
- Die cast basket
- Rubber surround
- 2"/ 50 mm voice coil made of flat aluminum wire for maximum tightness.
- Hi-grade filters with ribbon air coils, polypropylene capacitors and metal oxide resistors.
- 28 mm tweeter with first rate textile dome in a die cast cabinet.

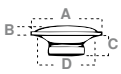


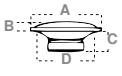
ULTIMATE US – This is a brand new speaker line with a performance that is something extra! It is equipped with an enhanced crossover incorporating components of the highest quality like ribbon coils, polypropylene capacitors and metal oxide resistors.

The voice coil in the woofers is 2". Available as 2-way system in 5,25" and 6,5". The system uses the same cone of aluminium as our Nobelium line providing sound reproduction of the absolutely highest class.

The included US1 tweeter uses die cast basket for improved sound and mechanical stability. The tweeter has a 4-way level control in the crossover box

ULTIMATE US SERIES

MODEL		**US5** (2-way system)	**US6** (2-way system)
BASS		5,25" (16,5 cm)	6,5" (16,5 cm)
TWEETER/MID		US1, 28 mm tweeter	US1, 28 mm tweeter
POWER		80 W RMS/120 W MAX	100 W RMS/160 W MAX
SENSITIVITY		91 dB	91 dB
MAGNET		100 mm / 4"	100 mm / 4"
	**A**	130 mm / 5,25"	165 mm / 6,5"
	B	25 mm / 1"	25 mm / 1"
	C	60 mm / 2,36"	66 mm / 2,6"
	D	122 mm / 4,80"	142 mm / 5,6"

MODEL		**US1**
SIZE		28 mm/ 1,1", 4 ohm
FREQ. RANGE		1 - 25 kHz
DOME MATERIAL		Fabric
POWER		50 W RMS / 80 W MAX
SENSITIVITY		93 dB
MAGNET		28 mm / 1,1" neodymium
	**A**	62 mm / 2,44"
	B	15 mm / 0,59"
	C	25 mm /1,02"
	D	46 mm / 1,77"

SMALL **BUT GOOD**

FEATURES:

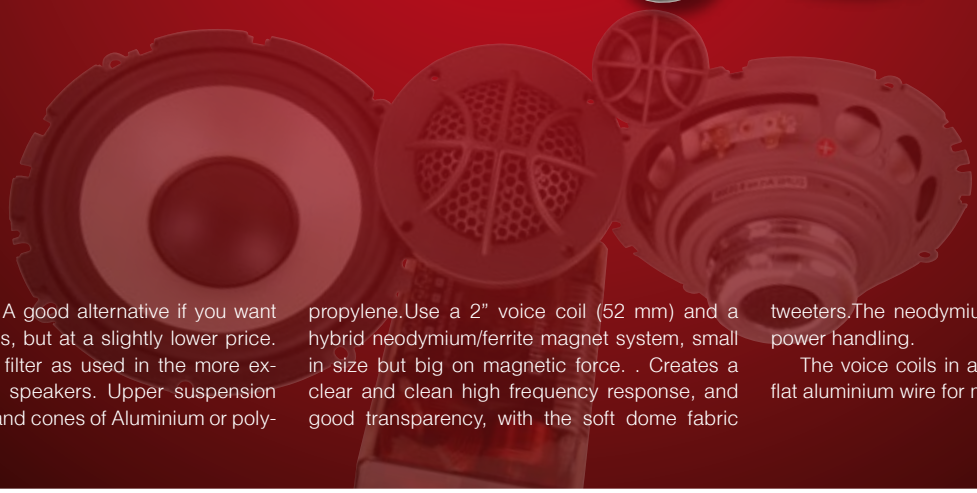
- Aluminum or PP cone
- Rubber surround
- 2"/ 52 mm voice coil made of flat aluminum wire for maximum tightness
- Neodymium magnets
- Hi-grade filters with air coils and polypropylene capacitors.
- 28 mm soft dome tweeter

TEST WINNER

UP6 was test winner in the German magazine CAR & HIFI. Eight different compo systems in the prize range from 340 to 500 Euro were tested and DLS UP6 came out as winner. The magazine wrote:

"The most harmonious reproduction in the middle and higher notes was offered by DLS, it went to work quickly making friends and with great love of detail. No other system in the test plays so beautifully balanced. The best goodies offered by DLS are the natural reproduction of voices and instruments!"

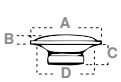
(Note ! The new UP6i is even better)



ULTIMATE UP - A good alternative if you want our best speakers, but at a slightly lower price. Same advanced filter as used in the more expensive Ultimate speakers. Upper suspension made of rubber, and cones of Aluminium or polypropylene.Use a 2" voice coil (52 mm) and a hybrid neodymium/ferrite magnet system, small in size but big on magnetic force. . Creates a clear and clean high frequency response, and good transparency, with the soft dome fabric tweeters.The neodymium magnets ensure high power handling.

The voice coils in all drivers are wound with flat aluminium wire for maximum tightness.

ULTIMATE UP SERIES

MODEL		**UP5i*** (2-way system)	**UP6i*** (2-way system)	**UP35** (3-way system)	**UP36i** (3-way system)
BASS		5,25" (13 cm)	6,5" (16,5 cm)	5,25" (13 cm)	6,5" (16,5 cm)
TWEETER / MID		UP1i (28 mm / 1,1")	UP1i (28 mm / 1,1")	UP1C tweeter, UP2,5, 2,5" mid.	UP1C tweeter, UP2,5, 2,5" mid.
POWER		120 W RMS/180 W MAX	150 W RMS/180 W MAX	120 W RMS/180 W MAX	150 W RMS/180 W MAX
SENSITIVITY		89 dB	88 dB	89 dB	88 dB
MAGNET		62 mm / 2,44"	62 mm / 2,44"	62 mm / 2,44"	62 mm / 2,44"
	**A**	130 mm / 5,12"	165 mm / 6,5"	130 mm / 5,12"	165 mm / 6,5"
	B	20 mm / 0,8"	25 mm / 1"	20 mm / 0,8"	25 mm / 1"
	C	58 mm / 2,28"	63 mm / 2,48"	58 mm / 2,28"	63 mm / 2,48"
	D	120 mm / 4,72"	140 mm / 5,5"	120 mm / 4,72"	140 mm / 5,5"

**UP5i, UP6i & UP36i are improved models of UP5, UP6 & UP36*

THE ULTIMATE KICK

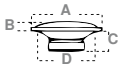
There are people with only one goal in life, and that's to play as loud as possible in a car. It's called dB drag racing and attracts many young people.

These woofers are made for those people who aren't satisfied before they have played so loud that they are on the upper limit of breaking both speakers and amplifiers. Everything is over-dimensioned to withstand the stresses of high-power play.

Dual, extra-powerful magnet system and a robust but light paper cone which gives the speakers a high sensitivity. 3" dual, 4-layer, voice coils at 2 x 2 ohms, length 32 mm. Available in 12", 15" and 18" models as SP12, SP15, SP15S and SP18S. Handles up to 1200 Watts of R.M.S. power when used for SPL competition.

SP15S and SP18S models are handmade SPL subwoofers. SP15S has four 2 ohm voice coils and SP18S, three 2 ohm voice coils.

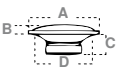
ULTIMATE SUBWOOFERS SP SERIES

MODEL		**SP12i** (12", 30 cm)	**SP15** (15", 37,5 cm)	**SP15S** (15", 37,5 cm)	**SP18S** (18", 45 cm)
FREQ. RANGE		20-2000 Hz, 2 x 2 ohm	15-2000 Hz, 2 x 2 ohm	15-1000 Hz, 4 x 2 ohm	13 - 1000 Hz, 3 x 2 ohm
POWER		500 W RMS / 1200 W for SPL	500 W RMS / 1200 W for SPL	500 W RMS / 2000 W for SPL	500 W RMS / 2000 W for SPL
SENSITIVITY		97,3 dB	99,9 dB	88,1 dB	90,5 dB
WEIGHT		13 kg / 28,66 lb	13,4 kg / 29,54 lb	13,4 kg / 29,54 lb	19,8 kg / 43,65 lb
MAGNET		220 mm / 8,7", 200 oz	220 mm / 8,7", 200 oz	220 mm / 8,7", 200 oz	220 mm / 8,7", 200 oz
FS / QTS / VAS		30,5 Hz /0,24 / VAS 98,7 l / 3,48 ft^3	33,2 Hz /0,32 / VAS 191,7 l /6,77 ft^3	39 Hz /0,92 / VAS 72,4 l / 2,55 ft^3	31,9 Hz /0,7 / VAS 177 l / 6,25 ft^3
	**A**	313 mm (12,32")	390 mm (15,35")	390 mm (15,35")	465 mm (18,3")
	B	25 mm (1")	25 mm (1")	25 mm (1")	25 mm (1")
	C	153 mm (6")	175 mm (6,89")	175 mm (6,89")	220 mm (8,66")
	D	282 mm (11,1")	360 mm (14,17")	360 mm (14,17")	430 mm (16,9")

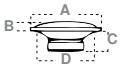
THE ULTIMATE **CAR COAXIAL**

Ultimate series UX 26 is a high class 6,5" / 165 mm coaxial speaker using the latest DLS technology. The midbass driver has a 2" VC with flat aluminium wire for maximum tightness. Aluminium cone with rubber surround. Neodymium magnet system.The 28 mm tweeter uses Nanoplate technique allowing it to play up to 25 kHz. This is the same tweeter as the tweeter we use in our most expensive Home Audio speakers. The tweeter level is adjustable in four steps. Separate filter boxes with high class components like ribbon air coils and polypropylene capacitors.

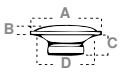
COAXIAL UX26

MODEL		UX26
SIZE		6,5" (16,5 CM), 4 OHM
FREQ. RANGE		45 - 25 000 Hz
TWEETER		28 mm NANOPLATE
POWER		100 W RMS / 160 W MAX
SENSITIVITY		91 dB
MAGNET		58 mm / 2,28"
	A	165 mm / 6,5"
	B	10 mm / 0,4"
	C	66 mm / 2,6"
	D	140 mm / 5,5"

TWEETERS – ALL TWEETER AND MIDRANGE MEASURES BELOW ARE FOR RECESSED MOUNTING

MODEL		UP1i / UP1C	IRIDIUM 1i	NOBELIUM 1
SIZE		28 mm / 1,1", 4 ohm	28 mm / 1,1", 4 ohm	28 mm / 1,1", 4 ohm
FREQ. RANGE		1,5 - 20 kHz	1 - 25 kHz	1 - 25 kHz
DOME MATERIAL		Fabric	Fabric	Coated Fabric
POWER		50 W RMS / 80 W MAX	50 W RMS / 80 W MAX	50 W RMS / 80 W MAX
SENSITIVITY		93 dB	93 dB	93 dB
MAGNET		28 mm / 1,1" neodymium	28 mm / 1,1" neodymium	28 mm / 1,1" neodymium
	A	60 mm / 2,36"	62 mm / 2,44"	62 mm / 2,44"
	B	12 mm / 0,47"	15 mm / 0,59"	15 mm / 0,59"
	C	18 mm / 0,71"	25 mm /1,02"	25 mm /1,02"
	D	48 mm / 1,89"	46 mm / 1,77"	46 mm / 1,77"

MIDRANGE

MODEL		**IRIDIUM 3**, MID-DOME W. CHAMBER	**UP2,5i,** MID-DOME	**UR2,5** MID-DOME W. CHAMBER
SIZE		3" (7,5 cm), 4 OHM	2,5" (6,3 cm), 4 OHM	2,5" (6,3 cm), 4 OHM
FREQ. RANGE		250 - 8000 Hz	400 - 8000 Hz	400 - 8000 Hz
DOME MATERIAL		COATED FABRIC	FABRIC	FABRIC
POWER		100 W RMS / 160 W MAX	90 W RMS / 160 W MAX	90 W RMS / 160 W MAX
SENSITIVITY		91 dB	91 dB	91 dB
MAGNET		80 mm / 3,15"	65 mm / 2,56", neodymium	85 mm / 3,35"
	A	120 mm / 4,72"	100 mm / 3,94	100 mm / 3,94"
	B	30 mm / 1,18"	10 mm / 0,39"	10 mm / 0,39"
	C	35 mm / 1,38"	25 mm / 1"	36 mm / 1,42"
	D	95 mm / 3,74"	82 mm / 3,23"	82 mm / 3,23"

FULFILL YOUR DREAMS

Seven different models made to fulfil every need.

The DLS Ultimate amplifiers are more powerful and good-sounding than most other amplifiers. Sound reproduction is extremely good, we doubt if you've ever heard anything cleaner and clearer sound from a car audio amplifier. The power supply is over dimensioned and most models are 1 ohm stable.

The new TA2 tube amplifier is in a class of it's own with excellent sound qualities, a true reference amplifier.

In the measured power cubes shown, you can see that the amplifiers can deliver full output even when impedance drops. Built-in protection circuitry guards against short-circuits, overloads and high temperatures. The amplifiers work in class AB and have output transistors that are carefully matched in pairs to minimize transient distortion.

All amplifiers have some things in common, and this is the generously engineered DC/DC converters with large electrolytic capacitors for constant power reserves even at the most powerful output peaks.

The terminals are made of gold-plated brass and have been designed for direct connection to heavy cables. Most amplifiers are equipped with built-in fan control that electronically controls fan speeds to compensate for temperature increases.

ULTIMATE series TA2 is a unique HiFi two-channel amplifier with 2 x 100 Watts output power. This is an extremely well-sounding amplifier for car use. We did not compromise in any section of the construction when we designed the electronic circuits. The TA2 is using the very best components in all sections of the amplifier, from the input circuitry, through the whole amplifier to the final output stage. Two pieces of CV4010 pentodes is used in the signal path. These tubes are made by VALVE Electronics in England during 1982 - 1984. The Valve Electronics Company produced the best sounding tubes in the tube industry before they closed. The tubes are spare parts for military equipment so they fulfil military specifications. We use silver wire Capacitors in signal path and power supply for a focused sound image. Special designed DLS Audio capacitors in key points and WIMA polypropylene capacitors. Four pieces of 4700 uF are used on each channel for a deep and wide sound stage. Dual mono power system design plus separate power supply for tube and pre-amp stage for clear sound reproduction. The TA2 was installed in three of the winning cars in the IASCA and European finals 2006.

CV4010 pentode
in signal path

A2 - The Mid Stereo
A two-channel amplifier. Provides a power output of 2 x 85 Watts in 4 ohm stereo and 290/450 Watts in 4/2 ohm mono bridge mode. Built-in high- and low pass filters.

A3 - The Twin Mono
A3 includes two very powerful channels. A true, dual mono block with separate power sources that provides power output of 2 x 150 Watts with 4 ohm stereo and 550/870/1000 Watts with 4/2/1,33 ohm mono bridge mode. Built-in fan control as well as high- and low pass filters. Dual power terminals connect the power feeds or a DLS Power Cap. Phase reverse button.

A4 - The Big Four
Powerful 4-channel amplifier rated at 4 x 85 Watts. Built-in variable 50-125 Hz low-pass filters for subwoofers on all channels. Additionally, a built-in variable 20-200 Hz high pass filters to be used as a subsonic filter or high pass filter for front systems. The frequency can be switched on the filter so that two of the channels can be used for mid-range woofers. Dual power terminals and output terminal for electronically controlled cooling fan.

A5 - The Big Three
A three-channel amplifier rated at 2 x 85 Watts in stereo and 1 x 300 Watts in mono. In 2 ohm load it delivers 2 x 100 Watts in stereo and 1 x 500 Watts in mono. The mono channel is one ohm stable. Built-in electronically controlled fan. High and low pass filters as well as a subsonic filter on the mono channel are incorporated. Remote sub level control is included.

The perfect amplifier for a front system and one or more subwoofers in the trunk.

A6 - The Mono Amp
A one ohm stable monoblock that's perfect for the SPL competitor. Extremely powerful power supply. The output power in 1 ohm is a true1200 RMS Watts. A cooling fan is built in but the amplifier also provides a built-in fan control for external cooling fan. Continuous phase control and remote level control included. Built-in, variable 50-125 Hz low pass filters for subwoofers plus a 25 Hz subsonic filter. Frequency range of amplifier 20-125 Hz. Dual power terminals where you can connect dual power feeds or a DLS Power Cap.

A7 - The Big Five
Five-channel amplifier rated at 4x60 Watts on the stereo channels plus 1x300 Watts from the mono sub channel. You can build a complete in car entertainment system with all necessary crossovers, all in one amplifier.

For detailed information about the crossover possibilities please read the technical specifications. Internal switches connect all amplifier inputs if you prefer to use a single line cable. Built-in fan control. Remote sub level control is included.

" The live track of "Live in Paris and Toronto" by Loreena McKennit was outstandingly authentic via the DLS amplifier. This means that this DLS A7 from the high North is among the best multi-channel amplifiers on the planet, and is really worth its 1250 Euro. "

The German car audio magazine

TA2 - The Tube Amp
Our goal was to make the best sounding car amplifier in the world. If we succeeded or not, is up to our customers to decide, but here is what the German magazine CAR & HIFI wrote in their test:

" To describe the DLS as just good fun would be not doing it full justice. When you listen to it, you also get the feeling of owning something very special. Something that will undoubtedly keep you satisfied for a very long time. We certainly found it very hard to hand it back to its rightful owners. "

DLS ULTIMATE RMS output per channel at 13,8 volts, 20 Hz - 20 kHz,<0,1% distortion.	**A2**	**A3**	**A4**	**A5**	**A6**	**A7**
Number of channels	2	2	4	3	1	5
Power output in 4 ohm	2x85 W	2x150 W	4x85 W	2x85 W	1x500 W	4x60 W
Power output in 2 ohm	2x145 W	2x270 W	4x145 W	2x100 W	1x870 W	4x100W
Power output in 1 ohm	2x220 W	2x425 W	2x220 W	–	1x1200 W	–
Mono bridge mode 4 ohm	1x290 W	1x550 W	2x250 W	–	–	–
Mono bridge mode 2 ohm	1x450 W	1x870 W	2x400 W	–	–	–
Mono bridge mode 1 ohm	–	1x1200 W	–	–	–	–
Mono sub channel, nom. power 4 ohm	–	–	–	1x300 W	–	1x300 W
Mono sub channel, nom. power 2 ohm	–	–	–	1x500 W	–	1x440 W
Mono sub channel, nom. power 1 ohm	–	–	–	1x780 W	–	–
S / N ratio, A-weighted	>100 dB	>100 dB	>100 dB	>100 dB	>100 dB	>100 dB
Damping factor	>200	>200	>200	>200	>200	>200
Input impedance	>10 k	>10 k	>10 k	>10 k	>10 k	>10 k
Input sensitivity	0,2-7V	0,2-7V	0,2-7V	0,2-7V	0,2-7V	0,3-7V
Filter high pass	20-200 Hz	20-200 Hz	FRONT: LP: 50-125 Hz HP: 20-200 / 60-600 Hz	50-150 Hz	-	FRONT: 80-400Hz / 1,6-8 kHz REAR: 80-400 Hz
Filter low pass	50-125 Hz*	50-125 Hz*	REAR:LP: 45-200 / 90-400 Hz HP: 20-200 Hz	40-90 Hz	50-125 Hz	REAR: 0,3-4 kHz / 3-40 kHz SUB CH: 50-125 Hz
*can be switched in/out						
Subsonic filter 25 Hz/18 dB	–	–	–	yes	yes	–
Dual DC-inputs	–	yes	yes	–	yes	–
Phase shift button 0 / 180°	–	yes	–	–	–	–
Phase shift control continuous	–	–	–	0-180 degrees	0-180 degrees	0-180 degrees
Fan output terminal	–	yes	yes	yes	yes	yes
Remote sub level control	–	–	–	yes	yes	yes
POWER CONSUMPTION						
Idle	0,6 A	1,1 A	1,5 A	0,5 A	0,6 A	1,1 A
Maximum	60 A	140 A	95 A	90 A	140 A	120 A
Dimensions (mm)	265x240x73	410x240x73	465x940x73	410x240x73	410x240x73	605x240x73
Dimensions (inch)	10,43x9,45x2,87	16,15x9,45x2,87	18,30x9,45x2,87	16,15x9,45x2,87	16,15x9,45x2,87	23,82x9,45x2,87
Weight	3,7 kg (8,16 lb)	6,2 kg (13,67 lb)	6,6 kg (14,55 lb)	5,9 kg (13 lb)	6,2 kg (13,67 lb)	8,1 kg (17,86 lb)

DLS ULTIMATE All power ratings at 13,8 Volt	**TA2**
Number of channels	2
Amplifier class	AB
Power output in 4 ohm (0,1% THD)	2 x100 W
Power output in 2 ohm (0,1% THD)	2 x 200 W
Tubes in signal path	2 x CV4010
THD@1W	<0,04%
Signal to noise ratio, A-weighted	>102 dB
Damping factor	>240
Frequency response	10 Hz - 50 kHz
Input impedance	>10 kohms
Input sensitivity	0,5 - 7 V
High pass filter	20 - 200 Hz
Filter slope	12 dB / octave
Max cable size DC input	16 mm2 (5AWG)
Max cable size, speakers	16 mm2 (5AWG)
Power consumption, idle	1,5 A
Power consumption, maximum	40 A
Fuses	2 x 20 A
Dimensions (mm) W x H x D	410 x 240 x 73
Dimensions (inch)	16,14 x 9,45 x 2,87
Weight	6,2 kg / 13,67 lb

REMOTE BASS LEVEL & PHASE CONTROL
A5, A6 & A7 includes a variable bass level and phase shift control on the sub channel. Adjust the bass sound sitting in the front seat to perfectly match your music choice.

LJ DLS
www.seles.si

REFERENCE

We think that you'll be surprised with the musical subtleties - subtleties that you were unable to hear before you installed our exclusive Reference series speakers.

Rich and powerful bass sound combined with crystal-clear treble and mid-range sound which really makes your hair to rise all over your body.

JUST KEEP ON ROCKING

You are never to old for loving good old rock´n´roll music.

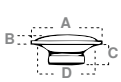
Keep on rocking with DLS R4, R5A, R6A, 2-way systems in sizes ranging from 4" to 6.5", plus a 3-way system Reference 6.3. The drivers for the R5A and R6A have a new type of cone manufactured from carbon fibre-reinforced, non-pressed paper. A powerful magnet, large pole plate and high-power voice coil guarantee output resilience for all types of music.

Reference 6.3 is a new 3-way component kit in the Reference series. It contains a 6,5" mid bass driver, a 2,5" mid dome, and a 20 mm silk dome tweeter.

BB26

If you don't want to build your own subwoofer enclosure you can buy the BB26. It is a complete 18 litre box with the RW6 subs installed. Just put it in your trunk, connect to an external amplifier, and you will get a superb bass sound without a lot of extra work.

REFERENCE R SERIES

MODEL		**R4** (2-WAY SYSTEM)	**R5A** (2-WAY SYSTEM)	**R6A** (2-WAY SYSTEM)	**REFERENCE 6.3** (3-WAY)
BASS		4" (10 cm)	5,25" (13 cm)	6,5" (16,5 cm)	6.5" BASS / 2,5" MID
TWEETER		T 20 (20 mm / 0,8")	T 25 (25 mm / 1")	T 25 (25 mm / 1")	T 20 (20 mm / 0,8")
POWER		50 W RMS / 80 W MAX	80 W RMS / 120 W MAX	80 W RMS / 120 W MAX	60 W RMS / 90 W MAX
SENSITIVITY		94 dB	94 dB	94 dB	93 dB
MAGNET		80 mm / 3,15"	90 mm / 3,54"	100 mm / 3,94"	80 mm / 65 mm (bass / mid)
	**A**	100 mm / 3,94"	130 mm / 5,12"	165 mm / 6.5"	165 / 100 mm (bass / mid)
	B	18 mm / 0,71"	20 mm / 0,8"	20 mm / 0,8"	20 / 10 mm (bass / mid)
	C	60 mm / 2,36"	60 mm / 2,36"	76 mm / 3"	63 / 25 mm (bass / mid)
	D	102 mm / 4"	120 mm / 4,72"	140 mm / 5.51"	146 / 82 mm (bass / mid)

FEEL THE BASS IN YOUR SPINE

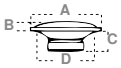
With our woofers, you get a sound experience with an extra dimension, a dimension you can feel all the way to your spine.

The Reference RW subwoofers include 4 models, from 6,5" up to 15". The larger woofers have poly-injection cones and rubber suspension. RW15 is a nice looking 15-incher with steel basket in black chrome. RW10 & 12 has a 2 ohm voice coil while the RW15 have two 4 ohm coils. RG10 & RG12 are specially designed grilles for RW10 & RW12, sold separately.

The RW 10 & 12 subwoofers are made for use in sealed enclosures only. RW10 in 18 litres (0,63 cuft) and RW12 in 28 litres (0,99 cu ft). RW15 can be used either in a sealed or vented enclosure.

New 6,5" sub kit . The RW6 subwoofer kit comes with two 6,5" drivers, a 3" , 20 cm long, bass port and instructions for building an enclosure. The recommended enclosure for these drivers is only 18 liters so it can easily fit into any vehicle. Recommendations for other enclosure types are also included. Combined with a suitable amplifier this box creates a controlled and deep bass sound.

REFERENCE RW SUBWOOFERS

MODEL		**RW6 kit** (2 x 6,5", 165 mm)	**RW10** (10", 25 cm)	**RW12** (12", 30 cm)	**RW15** (15", 37,5 cm)
FREQ. RANGE		30-4000 Hz, 4 ohm	25-2000 Hz, 2 ohm	20-2000 Hz, 2 ohm	15-1000 Hz, 2x4 ohm
POWER		100 W RMS / 200 W MAX	250 W RMS / 500 W MAX	250 W RMS / 500 W MAX	400 W RMS / 600 W MAX
SENSITIVITY		86,1 dB	86,5 dB	87 dB	86,7 dB
WEIGHT		2 kg / 4,6 lb	4,5 kg / 9,9 lB	5,5 kg / 12,1 lb	12,5 kg / 27,55 lb
MAGNET		110 mm / 4,33"	150 mm / 5,9, 47 oz	150 mm / 5,9, 55 oz	180 mm / 7,1", 160 oz
FS / QTS / VAS		47 Hz / 0,45 / VAS 12,2 l /0,43 ft^3	28,8 Hz / 0,46 / VAS 58 l / 2,05 ft^3	28,5 Hz / 0,59 / VAS 90 l / 3,17 ft^3	28,7 Hz / 0,30 / VAS 122,2 l / 4,3 ft^3
	**A**	165 mm / 6,5" 2	275 mm / 10,82"	320 mm / 12,6"	385 mm / 15,15"
	B	6 mm / 0,25"	19 mm / 0,75"	19 mm / 0,75"	25 mm / 1"
	C	84 mm / 3,3"	150 mm / 5,9"	165 mm / 6,5"	180 mm / 7,08"
	D	140 mm / 5,5"	240 mm / 9,45	280 mm / 11"	353 mm / 13,9"

FOR HARD ROCK LOVERS

THE GERMAN MAGAZINE
CAR & HIFI tested MS6A and they were rewarded as "KLANGTIP" (Best sound) in a test where seven other leading brands participated in "Spitzenklasse".

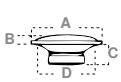
MS5A, MS6A, speakers for sound enthusiasts who appreciate full-on rock.

The metal cone brings together strength and low weight to provide superb mid-range and mid-bass reproduction. Available in 5.25" and 6.5" sizes as 2-way systems.

For several years, our 6 x 9" speakers have been among our best-sold speakers. Now we've completed our assortment with the DLS R1073, a new 7 x 10" triaxial speaker that is in a class of its own. It fits the same installation holes as the 6 x 9".

R964 is a 6 X 9" speaker that Incorporates a powerful magnet and shiny basket, can be connected in bi-wiring mode.

REFERENCE COAXIAL AND MS SERIES

MODEL		**R964** (2-WAY COAXIAL)	**R1073** (3-WAY COAXIAL)	**MS5A** (2-WAY SYSTEM)	**MS6A** (2-WAY SYSTEM)
BASS		6 X 9"	7 X 10"	5,25" (13 cm)	6,5" (16,5 cm)
TWEETER		25 mm / 1" adjustable	20 mm tweeter / 50 mm mid	UP1C (28 mm / 1,1")	UP1C (28 mm / 1,1")
POWER		80 W RMS / 120 W MAX	100 W RMS / 150 W MAX	80 W RMS / 120 W MAX	100 W RMS /160 W MAX
SENSITIVITY		93 dB	93 dB	90 dB	92 dB
MAGNET		120 mm / 4,7"	145 mm / 5,7"	90 mm / 3,54"	100 mm / 3,94"
	**A**	185x249 mm / 7,3"x9,8"	195x265 mm / 7,68"x10,4"	130 mm / 5,12"	165 mm / 6,5"
	B	29 mm / 1,14"	36 mm / 1,4"	20 mm / 0,8"	25 mm / 1"
	C	90 mm / 3,54"	80 mm / 3,15"	58 mm / 2,28"	72 mm / 2,83"
	D	150x220 mm / 5,9"x8,7"	156x225 mm / 6,15"x8,86"	120 mm / 4,72"	140 mm / 5,5"

MAGNESIUM **DISH**

The Reference subwoofers include many models, two of them with a cone made of magnesium.

Speakers with sturdy die cast baskets, dual spiders and polished pole plates, lend dignity to all installations. MW10D and MW12D have a magnesium cone, a so-called one-cone body. Produces a hard and tight bass sound with depth even in small enclosures. They are made for use in vented enclosures.

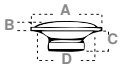
Cone suspension of butyl rubber and 4-layer, extra-long voice coils with an X-max of +- 9 mm. The MW10D have single magnet, while the MW12D have dual magnets.

ENCLOSURES

The MW10D works best in a 23 litre vented enclosure using a 3" port with a length of 20 cm (7,87").

The MW12D want a 35 litre vented enclosure with a 4" port with a length of 20 cm (7,87").

REFERENCE SUBWOOFERS - MAGNESIUM CONE

MODEL		**MW10D** (10", 25 cm)	**MW12D** (12", 30 cm)
FREQ. RANGE		25-2000 HZ, 4 OHM	20-2000 HZ, 4 OHM
POWER		400 W RMS / 600 W MAX	400 W RMS / 600 W MAX
SENSITIVITY		87,4 dB	93,5 dB
WEIGHT		5,3 kg / 11,68 lb	9,7 kg / 21,3 lB
MAGNET		156 mm / 6,15", 50 oz	180 mm / 7,1, 140 oz
FS / QTS / VAS		36,9 Hz / 0,31 / VAS 25,7 l /0,91 ft³	39,8 Hz / 0,26 / VAS 64,9 l / 2,29 ft³
	**A**	266 mm / 10,47"	313 mm / 12,32"
	B	14 mm / 0,55"	14 mm / 0,55"
	C	125 mm / 4,92"	153 mm / 6"
	D	236 mm / 9,29"	282 mm / 11,1"

WHEN SPACE IS LIMITED

This line is designed to fit most car models straight from the box.

This speaker line have shallower baskets and a different magnet design – instead of traditional magnets, extra strong strontium magnets are used. Combined with high-class, individually tested crossover filters for each type, the quality of sound is first-rate. How can they sound so good without costing more?

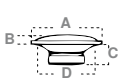
The answer is in carefully tested and adapted component parts. Combined with any subwoofer in the Reference series they gives an excellent performance in all kind of vehicles. These speakers come in two versions.

The PS4, RS5 and RS6 have single filter boxes which mean that the filter box for each channel has a combined filter box for the bass driver and tweeter.

The models PS4A, RS5A and RS6A have split filter boxes for midrange driver and tweeter. This makes it easier to install if you mount the midrange in your door, and the tweeter on the dashboard.

RS5 / RS5A and RS6 / RS6A are using our new EFR dual cone technique for extended frequency response.

REFERENCE PS/RS SERIES

MODEL		**PS4** / **PS4A*** (2-WAY SYSTEM)	**RS5** / **RS5A*** (2-WAY SYSTEM)	**RS6** / **RS6A*** (2-WAY SYSTEM)	**T25** TWEETER
BASS		4" (10 cm)	5,25" (13 cm) EFR	6,5" (16,5 cm) EFR	25 mm / 1", 4 OHM
TWEETER		T 20 (20 mm / 0,8")	T25 (25 mm / 1")	T25 (25 mm / 1")	1,5 - 20 kHz
POWER		50 W RMS / 80 W MAX	50 W RMS / 80 W MAX	50 W RMS / 80 W MAX	50 W RMS / 80 W MAX
SENSITIVITY		90 dB	92 dB	92 dB	93 dB
MAGNET		80 mm / 3,15"	90 mm / 3,54"	90 mm / 3,54"	25 mm / 1" neodymium
	**A**	100 mm / 3,94"	130 mm / 5,12"	165 mm / 6.5"	57 mm / 1,7"
	B	18 mm / 0,7"	20 mm / 0,8"	25 mm / 1"	10 mm / 0,4"
	C	50 mm / 2"	45 mm / 1,77"	53 mm / 2,09"	18 mm / 0,71"
	D	98 mm / 3,85"	117 mm / 4,6"	146 mm / 5,75"	46 mm / 1,81"

** A-models have split filter boxes for tweeter and bass driver*

THE EASIEST WAY TO **PUMP UP THE BASS**

When you listen to a factory installed sound system you immediately feel that something's missing, the bass!

This can easily be fixed by installing an active subwoofer enclosure. It is the easiest way to get a good bass sound in any type of car. These active boxes are made of strong MDF board covered with grey-black felt mat.

The amplifier SBA 185 is a class AB amplifier with a power output of 180 true RMS watts which guaranties a superb deep bass that don't lack the kick. They also include both high and low level signal input and continuously variable phase control. The high level input include an automatic start function. We use the SBA185 in all our active subwoofer boxes.

PASSIVE SPEAKER ENCLOSURES

If you already have a suitable amplifier installed in your vehicle you can buy the same boxes with these subs, but without the built in amplifier. Just put it in your trunk, connect to the amplifier, and you will get a superb bass sound without a lot of work. All the active boxes are also available as passive.

DLS ACTIVE & PASSIVE SUBWOOFER ENCLOSURES

SBA185
The amp for active subwoofer boxes.
- Power output in 4 ohm 180 W RMS, 265 Watts in 2 ohm.
- Phase control 0 - 90 degrees continuously
- Phase switch 0 or 180 degrees
- RCA low level input
- High level input with auto start
- Level control 0,2 - 7V
- Socket for remote level & phase control
- Frequency range 25-160 Hz
- Supply voltage 12-15 Volt DC
- Gold plated terminals
- Built-in electronically controlled fan.
- Variable low pass filter 35-160 Hz (24 db slope)

ASB 326 / BB26
2 x 6,5" subwoofer RW6
Carpeted 18 liters net volume MDF-box
Amplifiier SBA185 in ASB326,
- BB26 is the passive box w/o amplifier.
Power output for ASB326 is 265 Watts RMS
Box size in mm:
420 x 265 x 266/199 (W x H x D)
Box size in inch:
16,5 x 10,4 x 10,5/7,83 (W x H x D)
Weight:
10,8 kg / 23,8 lb

ASB 110 / BB110
1 x 10" subwoofer KW10
Sealed enclosure
Carpeted 23 liters net volume MDF-box
Amplifiier SBA185 in ASB110,
- BB110 is the passive box w/o amplifier.
Power output for ASB110 is 180 Watts RMS
Box size in mm:
470 x 330 x 260/180 (W x H x D)
Box size in inch:
18,5 x 13 x 10,2/7,1 (W x H x D)
Weight :
11 kg / 24,2 lb

ASB 120 / BB120
2 x 10" subwoofer KW10
Sealed enclosure
Carpeted 44 liters net volume MDF-box
Amplifiier SBA185 in ASB 210,
- BB210 is the passive box w/o amplifier.
Power output for ASB210 is 265 Watts RMS
Box size in mm:
800 x 330 x 280/200 (W x H x D)
Box size in inch:
31,5 x 13 x 11/7,9 (W x H x D)
Weight :
18,3 kg / 40,3 lb

ASB 212 / BB212
1 x 12" subwoofer RW12
Carpeted 28 liters net volume MDF-box
Amplifiier SBA185 in ASB212,
- BB212 is the passive box w/o amplifier.
Power output for ASB212 is 265 Watts RMS

Box size in mm:
500 x 360 x 260/200 (W x H x D)
Box size in inch:
19,7 x 14,2 x 10,2/7,9 (W x H x D)
Weight :
14,3 kg / 31,5 lb

TEST REPORTS FROM MAGAZINES **ALL OVER THE WORLD**

IRIDIUM 6.2
Tested in the German magazine autohifi 3/2003

The magazine wrote:
"In the auto hi-fi listening test the DLS made it immediately clear that, in terms of sound, it belongs in the premier loudspeaker league. Its finely dissolving, but never aggressive sounding treble area, and the warm, impulse-friendly bass made for a lot of fun while listening. It did not matter whether the system was being tortured with evil techno tracks or spoilt with natural instruments; the Ultimate Iridium was in its element with any type of music. Only the voice area sounded a bit fore grounded and minimally faded, which is the fault of the bass box membrane having a life of its own.

Synopsis: The latest youngster from DLS clearly belongs at the top of the class. For its silky, finely dissolving treble area alone, the Ultimate Iridium can be recommended to all car hi-fi fans who demand high-class front staging.

ULTIMATE AMPLIFIER A5
Tested in German magazine autohifi high-end 2003

The magazine wrote:
"Eagerly, the editors now connected the amp in the laboratory – and registered excellent readings. With 2 x 68 and 1 x 305 watts at 4 ohm, the A5 is excellently served. The 2-ohm reading was even better: here the DLS actually registered 2 x 100 and 1 x 456 watts. In addition to the excellent output yield, there was a high attenuation factor of around 900 in the bass range, a very good distortion factor of 0.009 per cent and a signal-to-noise ration of 96 dB. This ought to be enough to silence the last of those who doubt the three-channel concept.

With a neutral tone, which is particularly taut in the bass range, this Swedish model then lets fly in the listening room. Especially with tracks with plenty of percussion and drums, she really cuts loose. But whatever type of music she is given, the A5 always produces stress-free reproduction with gentle, almost silky high notes, which then also complement the somewhat harsh tweeters. Just as convincing was the mid-range, which revealed plenty of body in sonorous male voices and also produced the necessary volume for female voices.

With this impressive performance the DLS A5 does not need to give way to any four-channel amplifier – the tone and the readings speak for themselves."

REFERENCE AMPLIFIER RA20
Tested in the German magazine Auto Hifi 7/2005

The magazine wrote:
"The RA 20 stood soundly in full element in the listening room as well. The power amplifier actually managed to bewitch the tester by delivering acute, virtually bubbly highs and a brilliant all-round performance. The mid tone range remained constantly neutral providing a nearly plastic vocal rendering whilst in the bass range the amplifier gave a tense and dynamically good show.

In view of this convincingly all-too-true sound performance, this Swedish amp is virtually on level with its bigger siblings and for this reason only it deserves the most smashing accolade"

CLASSIC B6
Test winner in the Finnish magazine autosound 2003

The magazine wrote:
"The test winner
DLS was the second cheapest series in the test, yet the accessories included speaker grilles and good installation accessories for the tweeter, and the band division filter had an option for selecting the level of the treble. The connectors could be sturdier, and where are the instructions? Overall the best system tested."

IRIDIUM 15
Tested in the German magazine Auto Hifi 4/2005

The magazine wrote:
"In the Test Factory measuring lab, the Swede was allowed to run riot with the Boulder amplifier - and both the sub and the testers had their fun. The Ultimate Iridium 15 was already going hell for leather at 90 Hz and delivered an impressive 119 dB. That this was not everything it had on offer was proven by the measurements at 50 and 70 Hz, with the DLS packing out yet another 4 dB – making a total ear deafening 123 dB.

Verdict: DLS has succeeded in creating a magnificent subwoofer with the Ultimate Iridium 15 - it kicks out power, sounds amazing and entirely justifies its high price".

Absolute Sound
Top Gun
DLS will mit dem Topmodell der Iridium-Serie wortwörtlich Druck machen. Was kann der 15-Zöller?
ABSOLUTE SOUND VERSTÄRKER
Klangkunst

REFERENCE AMPLIFIERS THEY MUST BE HEARD

These amplifiers have a warm and detailed sound making it possible to listen for many hours without tiring your ears.

They can be used together with most factory installed car stereo equipment thanks to the advanced high level input circuitry. They are equipped with features that are sufficient for the normal user as well as for the sound quality competitor. A modern slim design makes them fit into most cars.

The Reference amplifiers are 2 ohm stable, able to deliver the highest power peaks without distortion or dynamic loss. In the European Car sound finals in the last years, several of the prize winning DLS cars used these excellent ampli-

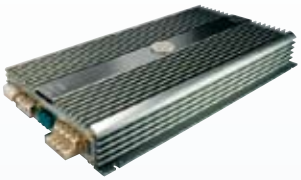
REFERENCE RA10
The Reference RA10 is a mono amplifier with a nominal output of 300 Watts in four ohm. It is 1 ohm stable and can put out up to 820 Watts using a one ohm load. Built-in low-pass filter for subwoofers, variable between 40 and 125 Hz. Bass boost and phase shift control. High level input with automatic start. A remote bass level and phase shift control is included.

REFERENCE RA20
The Reference RA20 with a nominal output of 2 x 130 Watts. With a mono bridge-connection, it puts out all of 440 Watts. Built-in low-pass filter for subwoofers, variable between 40 and 125 Hz. Bass boost and phase shift control. High level input with automatic start.

REFERENCE RA25
The Reference RA25 with a nominal output of 2 x 70 Watts. This amplifier is mainly designed for use to a front system. Built-in high-pass filter variable between 20 and 125 Hz. High level input with automatic start.

REFERENCE RA30
The Reference RA30 is a powerful 3-channel amplifier with a nominal output of 2 x 70 Watts plus 1 x 265 Watts. Built-in low- and high-pass filters. Bass boost 0-18 dB. Phase shift control and high level input with automatic start. A remote bass level and phase shift control is included.

REFERENCE RA40
The Reference RA40 is a powerful amplifier with a nominal output of 4 x 75 Watts. With a mono bridge-connection, it puts out all of 2 x 220 Watts. Switch-able low- and high-pass filters are incorporated. Bass boost 0-18 dB. Phase shift control and high level input with automatic start.



REFERENCE RA50
The Reference RA50 is a 5-channel amplifier with a nominal output of 4 x 70 Watts plus 1 x 265 Watts. Built-in low- and high-pass filters. Bass boost 0-18 dB. Phase shift control and high level input with automatic start. A remote bass level and phase shift control is included. The internal filters can be used for active crossover to a 2-way component set, or to a mid bass speaker.

BUILT-IN FILTERS
All models have built-in cross-over filters that make them easy to use as subwoofer amplifiers, for example.

The filters used on the respective amplifier types are seen in the specifications table.

HIGH INPUT
The high input is used for factory installed car stereo head units without RCA pre-outs.

Connect directly to the rear speakers. Automatic turn on when using high level input. You do not have to use the remote wire connection. If you prefer, you can use a remote wire together with high level input.

This feature comes with all amplifier models in this series.

GRAND BASS
Grand Bass is used to increase the bass volume at an interval of bass frequencies.

On the 40 Hz centre frequency you can adjust the amplification between 0 dB (no amplification) and +18 dB (full amplification). This function is used to compensate for the bass box function and to adjust for your own taste of bass.

VARIABLE PHASE CONTROL
All models except for RA25 include a variable phase shift control. This control helps you to get best possible front stage imaging in the low bass region.

REMOTE BASS LEVEL & PHASE CONTROL
RA10, RA30 & RA50 includes a variable bass level and phase shift control on the sub channel. Adjust the bass sound sitting in the front seat to perfectly match your music choice.

DLS REFERENCE R.M.S. Power output at 13,8 Volts, 20 Hz - 20 kHz, max 0,1% THD, all channels driven:	RA20	RA25	RA30	RA40	RA50
Number of channels	2	2	3	4	5
Power output in 4 ohm	2 x 130 W	2 x 70 W	2 x 70 W + 1 x 265 W	4 x 75 W	4 x 70 W + 1 x 265 W
Power output in 2 ohm	2 x 220 W	2 x 110 W	2 x 100 W + 1 x 365 W	4 x 110 W	4 x 110 W + 1 x 365 W
Power output 4 ohm bridged	1 x 440 W	1 x 220 W	-	2 x 220 W	2 x 220 W
Signal to noise ratio, A-weighted	>100 dB	>100 dB	>100 dB	>100 dB	>100 dB
Damping factor	>200	>200	>200	>200	>200
Frequency response +/- 0,5 dB	10 Hz - 50 kHz	10 Hz - 50 kHz	10 Hz - 50 kHz	10 Hz - 50 kHz	10 Hz - 50 kHz
Input impedance, low level	>10 kohms	>10 kohms	>10 kohms	>10 kohms	>10 kohm
Input impedance, high level	330 ohms	330 ohms	330 ohms	330 ohms	330 ohm
High level input with auto start	yes	yes	yes	yes	yes
Input sensitivity	0,2 - 7 V	0,2 - 7 V	0,2 - 7 V	0,2 - 7 V	0,5 - 8 V
Bass boost adjustable gain @ 40 Hz	0 - +18 dB	-	0 - +18 dB	0 - +18 dB	0 - +18 dB
Phase shift 0 - 180 degrees continuously	yes	-	yes	yes	yes
Remote bass level and phase shift	-	-	yes, on sub ch.	-	yes, on sub ch.
Filter high pass / fixed subsonic filter	20 - 150 Hz*	20 - 150 Hz*	45 - 125 Hz* / 25 Hz*	20 - 150 Hz on all ch.	see spec.
Filter low pass	40 - 125 Hz*	-	40 - 125 Hz	40 - 125 Hz*	see spec.
*can be switched in/out					
POWER CONSUMPTION					
Idle	0,6 A	0,6 A	0,9 A	0,9 A	1,2A
Maximum	50 A	25A	70 A	50 A	90 A
Fuses	2 x 25 A	1 x 25 A	2 x 35 A	2 x 25 A	3 x 30A
Dimensions (mm)	59 x 359 x 245	59 x 247 x 245	59 x 385 x 245	59 x 359 x 245	59 x 479 x 245 mm
Dimensions (inch)	2,33 x 14,1 x 9,65	2,33 x 9,72 x 9,65	2,33 x 15,15 x 9,65	2,33 x 14,1 x 9,65	2,33 x 18,85 x 9,65
Weight	3,8 kg / 8,4 lb	2,6 kg / 5,7 lb	4,4 kg /9,3 lb	4 kg / 8,8 lb	5,5 kg / 12,1 lb

DLS REFERENCE	RA10
Number of channels	1
Amplifier class	AB
Power output in 4 ohm (0,1% THD)	1 x 300 W
Power output in 2 ohm (0,1% THD)	1 x 500 W
Power output in 1 ohm (0,1% THD)	1 x 820 W
All power ratings at 13,8 Volt	
Signal to noise ratio, A-weighted	>100 dB
Damping factor	>200
Frequency response	10 Hz - 125 Hz
Input impedance	>10 kohms
Input impedance, high level	330 ohms
High level input with auto start	Yes
Input sensitivity	0,5 - 8 V
Phase control continuous	0 - 180 degrees
Bass boost adjustable gain	0 - +18 dB
Filter subsonic, 18 dB slope	25 Hz fixed
Filter low pass 12 dB slope	40 - 125 Hz
*can be switched in/out	
Power consumption, idle	1,5 A
Fuse	3 x 40 A
Dimensions (mm)	59 x 359 x 245
Dimensions (inch)	2,33 x 14,1 x 9,65
Weight	5,4 kg / 11,9 lb

Filter configuration RA50
Channel 1 & 2
High pass 50 - 140 Hz*
Low pass 250 / 2,5 kHz - 700 / 7kHz*
(x1, x10 switch)
Channel 3 & 4
High pass 50/250/2,5 k)Hz - 140/700/7 k) Hz*
(x1, x5, x50 switch)
Channel 5
Low pass 40 Hz - 125 Hz
Subsonic fixed 25 Hz*
*can be switched in / out

ACCESSORIES

If you want to improve the look of your installation there are two useful accessories:

- A connecting link to put between amplifiers when you mount them together.
- An end cover to put as a cable protection on the amplifier side.

PERFORMANCE

It's a mystery to many that the Performance series can give such a spacious sound despite their down to earth price.

The reality is that good design and space age materials can yield performance way beyond what you might expect.

You will find all kinds of speakers. Coaxial speakers from 4" to 8", different 2- or 3-way component kits, plus a wide range of 6 x 9" speakers. Subwoofers in 8", 10", and 12" sizes complete the line.

We want to offer the latest technology. This is why we are continuously upgrading our products. For example a C5 or C6 speaker kit from year 2000 has not much in common with today's model. An example is the new EFR dual cone system for extended frequency range that we implemented in many of our midbass drivers.

"The Performance / CLASSIC series is a long-time favourite in the DLS line. Solid construction with durable materials guarantees many years of good sound. With superior filters incorporating high-class components, you'll get the famed DLS sound - sound that satisfies even the most hardcore music enthusiast - at reasonable prices"

CLASSIC becomes PERFORMANCE

In the near future all DLS CLASSIC products will have a new name, we change to PERFORMANCE series, and we have already started with the amplifiers. The speakers will change to the new name in the nearest future. All products will keep their product names, but the packing will be new!

FEEL THE RHYTHM

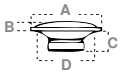
Two different types of subwoofers are included in the Performance series.

W308B, W310D and W312D are good sounding subs with cone of non-pressed carbon fibre reinforced paper and cone suspension of butyl rubber. They create a good sound in most enclosure types.

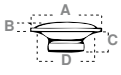
Long time ago, one or more woofers were installed on the hat shelf or against the backrest in the car. The luggage compartment served as the enclosure. Now, we are once again developing woofers for open-air installations, i.e. installations without enclosures.

The OA8, OA10D and OA12D have dual magnet systems, stable baskets and dual spiders to handle the heavy-duty demands that are inherent when installing a woofer without a box. They also work well in enclosures if you prefer that.

PERFORMANCE SUBWOOFERS

MODEL		**W308B** (8", 20 cm)	**W310D** (10", 25 cm)	**W312D** (12", 30 cm)
FREQ. RANGE		30-2000 Hz, 4 ohm	25-2000 Hz, 4 ohm	20-2000 Hz, 4 ohm
POWER		100 W RMS / 150 W MAX	120 W RMS / 200 W MAX	150 W RMS / 250 W MAX
SENSITIVITY		88,8 dB	89 dB	91 dB
WEIGHT		2,7 kg / 5,95 lb	4 kg / 8,82 lb	4,7 kg / 10,36 lb
MAGNET		120 mm / 4,7", 40 oz	145 mm / 5,7", 40 oz	156 mm / 6,14", 50 oz
FS / QTS / VAS		36 Hz / 0,40 / VAS 30,5 / 1,07 ft³	34,4 / 0,31 / VAS 39,7 l / 1,4 ft³	29,7 Hz / 0,30 / VAS 106 l / 3,74 ft³
	**A**	210 mm / 8,27"	265 mm / 10,43"	308 mm / 12,13"
	B	11 mm / 0,43"	11 mm / 0,43"	11 mm / 0,43"
	C	100 mm / 3,94"	134 mm / 5,28"	148 mm / 5,83"
	D	178 mm / 7"	240 mm / 9,45"	282 mm / 11,1"

PERFORMANCE SUBWOOFERS – OPEN AIR

MODEL		**OA8** (8", 20 cm)	**OA10D** (10", 25 cm)	**OA12D** (12", 30 cm)
FREQ. RANGE		30-2000 Hz, 8 ohm	25-2000 Hz, 4 ohm	20-2000 Hz, 4 ohm
POWER		150 W RMS / 250 W MAX	180 W RMS / 360 W MAX	210 W RMS / 400 W MAX
SENSITIVITY		85,1 dB	86,5 dB	88,4 dB
WEIGHT		3,8 kg / 8,83 lb	5,5 kg / 12,13 lb	5,8 kg / 12,79 lb
MAGNET		120 mm / 4,7", 80 oz	145 mm / 5,7", 80 oz	145 mm / 5,7", 80 oz
FS / QTS / VAS		32 Hz / 0,34 / VAS 23,96 l / 0,85 ft³	40 Hz / 0,47 / VAS 25,5 l / 0,9 ft³	38 Hz / 0,49 / VAS 48 l / 1,69 ft³
	**A**	210 mm / 8,27"	265 mm / 10,43"	308 mm / 12,13"
	B	15 mm / 0,6"	15 mm / 0,6"	15 mm / 0,6"
	C	120 mm / 4,72"	153 mm / 6,02"	169 mm / 6,65"
	D	180 mm / 7,08"	240 mm / 9,45"	282 mm / 11,1"

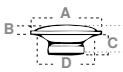
THE START OF SOMETHING NEW

The new Performance K-series is the start of something new! These are the cheapest 2-way systems and subwoofers in the DLS speaker line, but they are very competitive.

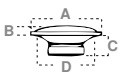
The KW subwoofers are designed for use in sealed enclosures. In a well built enclosure they create a bass sound that can be compared even with more expensive subs.

DLS EFR technology extends the frequency range of the mid bass driver in our component kits. It allows us to increase the tweeter X-over frequency to a point where we eliminate the risk of distorted sound from the tweeter. The EFR-technology also improves the OFF-axis reproduction which is very important in a door installation. The result is more pleasant sounding speakers; it is as simple as that!

KW SUBWOOFERS

MODEL		KW10 (10", 25 cm)	KW12 (12", 30 cm)
FREQ. RANGE		25-2000 Hz, 4 ohm	20-2000 Hz, 4 ohm
POWER		200 W RMS / 400 W MAX	250 W RMS / 400 W MAX
SENSITIVITY		89 dB	91,2 dB
WEIGHT		2.9 kg / 6.39 lb	4 kg / 9,17 lb
MAGNET		120 mm / 4.72"	120 mm / 4,72"
FS / QTS / VAS		37 Hz / 0,53 / VAS 50 l / 1,77 ft³	33 Hz / 0,42 / VAS 113 / 4 ft³
	A	267 mm / 10,51"	310 mm / 12,12"
	B	11 mm / 0,43"	11 mm / 0,43"
	C	116 mm / 4,57"	133 mm / 5,24"
	D	246 mm / 9.69"	278 mm / 10,94"

PERFORMANCE K SERIES

MODEL		K4 (2-WAY SYSTEM)	K5 (2-WAY SYSTEM)	K6 (2-WAY SYSTEM)
BASS		4" (10 cm) EFR-TECHNOLOGY	5,25" (13 cm) EFR TECHNOLOGY	6,5" (16,5 cm) EFR TECHNOLOGY
TWEETER		13 mm / 0,51"	13 mm / 0,51"	13 mm / 0,51"
POWER		50 W RMS / 80 W MAX	50 W RMS / 80 W MAX	50 W RMS / 80 W MAX
SENSIVITY		91 dB	91 dB	92 dB
MAGNET		70 mm / 2,75"	70 mm / 2,75"	80 mm / ,15"
	A	100 mm / 3,94"	130 mm / 5,12"	165 mm / 6.5"
	B	18 mm / 0,71"	20 mm / 0,8"	25 mm / 1"
	C	45 mm / 1,77"	50 mm / 2"	60 mm / 2,36"
	D	102 mm / 4"	115 mm / 4,53"	145 mm / 5,7"

LET THE PARTY BEGIN

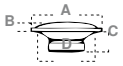
C6 - TEST WINNER IN THE GERMAN MAGAZINE AUTO HIFI 6/2002.
DLS C6 were tested together with 14 other 6,5" component kits in the price range 80 - 200 Euro.
The magazine wrote:
"The Swedish compo did a very sensitive and pleasant job. It gave a surprisingly clean and highly convincing performance, with a dry and clearly structured bass, and a quiet, but detailed treble."

The Performance B & C-series are two-way systems consisting of two separate tweeters and two woofer/midrange speakers in sizes from 4" up to 6,5". Passive crossover filters split the signal between the two speaker drivers.

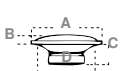
The tweeter filter has selectable sensitivity in two or three steps. Choose the sensitivity that produces the most pleasing treble in your system. C36 is a 3-way system in this line with a 6,5" woofer, 4" midrange and a 1" tweeter. The B5A, B6A, C5A and C6A mid bass drivers uses our new EFR dual cone technology for Extended Frequency Response.

DLS EFR technology extends the frequency range of the mid bass driver in our component kits. It allows us to increase the tweeter X-over frequency to a point where we eliminate the risk of distorted sound from the tweeter. The EFR-technology also improves the OFF-axis reproduction which is very important in a door installation. The result is more pleasant sounding speakers.

PERFORMANCE B SERIES

MODEL		**B5A** (2-WAY SYSTEM)	**B6A** (2-WAY SYSTEM)	**T20** TWEETER
BASS		5,25" (13 cm) EFR TECHNOLOGY	6,5" (16,5 cm) EFR TECHNOLOGY	20 mm / 0,78", 4 ohm
TWEETER		16 mm / 0,63"	16 mm / 0,63"	1,5 - 20 kHz
POWER		50 W RMS / 80 W MAX	50 W RMS / 80 W MAX	50 W RMS / 80 W MAX
SENSITIVITY		91 dB	91 dB	93 dB
MAGNET		80 mm / 3,15"	80 mm / 3,15"	20 mm / 0,78" neodymium
	**A**	130 mm / 5,12"	165 mm / 6,5"	58 mm / 2,28"
	B	20 mm / 0,8"	25 mm / 1"	10 mm / 0,4"
	C	63 mm / 2,48"	63 mm / 2,48"	20 mm / 0,79"
	D	117 mm / 4,6"	146 mm / 5,75"	48 mm / 1,79"

PERFORMANCE C SERIES

MODEL		**C4** (2-WAY SYSTEM)	**C5A** (2-WAY SYSTEM)	**C6A** (2-WAY SYSTEM)	**C36** (3-WAY SYSTEM)
BASS		4" (10 cm)	5,25" (13 cm) EFR TECHNOLOGY	6,5" (16,5 cm) EFR TECHNOLOGY	6,5" BASS, 4" MIDRANGE
TWEETER		T 20 (20 mm / 0,8")	T 20 (20 mm / 0,8")	T 20 (20 mm / 0,8")	T20 (20 mm / 0,8")
POWER		50 W RMS / 80 W MAX	50 W RMS / 80 W MAX	60 W RMS / 90 W MAX	60 W RMS / 90 W MAX
SENSITIVITY		92 dB	93 dB	93 dB	93 dB
MAGNET		70 mm / 2,75"	80 mm / 3,15"	80 mm / ,15"	80 / 70 mm (3,15" / 2,75")
	**A**	100 mm / 3,94"	130 mm / 5,12"	165 mm / 6.5"	165 / 100 mm (6,5" / 3,94")
	B	18 mm / 0,71"	20 mm / 0,8"	25 mm / 1"	25 / 18 mm (1" / 0,71")
	C	58 mm / 2,28"	60 mm / 2,36"	63 mm / 2,48"	63 / 58 mm (2,48" / 2,28")
	D	102 mm / 4"	120 mm / 4,72"	146 mm / 5,75"	146 / 102 mm (5,75" / 4")

LEGENDERY SOUND

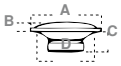
The Coaxial Classic series is the easiest path to the legendary DLS sound. The speakers are constructed from the same high-class components as used in the Classic 2-way systems.

The difference is that the Coaxial has tweeters integrated with the woofer/midrange. The tweeter in the Coaxial Classic 400-series is of the same type as used in our 2-way systems, meaning a silk dome and a powerful neodymium magnet cooled with Ferro fluid-oil.

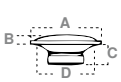
Moreover, on the DLS 428 and 962, the direction of the tweeter is adjustable. All speakers are easily powered with a strong bass, clear midrange, and a soft and airy treble.

DLS 960 is a popular 6 x 9" with integrated 12 dB crossover. It sounds so good that it has been our best–selling 6 x 9" for the past 10 years.

PERFORMANCE COAXIAL

MODEL		**424** (2-WAY COAXIAL)	**425** (2-WAY COAXIAL)	**426** (2-WAY COAXIAL)	**428** (2-WAY COAXIAL)
BASS		4" (10 cm)	5,25" (13 cm)	6,5" (16,5 cm)	8" (20 cm)
TWEETER		20 mm / 0,8" FIXED	20 mm / 0,8" FIXED	20 mm / 0,8" FIXED	25 mm / 1" ADJUSTABLE
POWER		50 W RMS / 80 W MAX	60 W RMS / 90 W MAX	60 W RMS / 90 W MAX	80 W RMS / 120 W MAX
SENSITIVITY		94 dB	93 dB	94 dB	94 dB
MAGNET		80 mm / 3,15"	90 mm / 3,54"	100 mm / 4"	105 mm / 4,1"
	**A**	100 mm / 3,94"	130 mm / 5,12"	165 mm / 6,5"	200 mm / 7,88"
	B	18 mm / 0,7"	20 mm / 0,8"	20 mm / 0,8"	24 mm / 0,95"
	C	58 mm / 2,28"	61 mm / 2,4"	62 mm / 2,44"	87 mm / 3,43"
	D	102 mm / 4"	117 mm / 4,6"	145 mm / 5,7"	185 mm / 7,28"

PERFORMANCE COAXIAL

MODELL		**457** (2-WAY COAXIAL)	**960** (3-WAY COAXIAL)	**962** (2-WAY COAXIAL)	**1072** (3-WAY COAXIAL)
BASS		5" X 7" (138 X 195 cm)	6 X 9"	6 X 9"	7 X 10"
TWEETER/MIDRANGE		20 mm / 0,8" fixed	20/50 mm / 0,8"/2"	25 mm / 1" adjustable	Piezo
POWER		60 W RMS / 90 W MAX	80 W RMS / 120 W MAX	80 W RMS / 120 W MAX	100 W RMS / 150 W MAX
SENSIVITY		93 dB	93 dB	93 dB	92 dB
MAGNET		100 mm / 4"	100 mm / 4"	100 mm / 4"	110 mm / 4,3"
	**A**	138 x 195 mm / 5,4 x 7,7"	185 x 249 mm / 7,3" x 9,8"	185 x 249 mm / 7,3" x 9,8"	182 x 252 mm / 7,16" x 9,92"
	B	20 mm / 0,8"	29 mm / 1,14"	29 mm / 1,14"	20 mm / 0,78"
	C	58 mm / 2,28"	83 mm / 3,27"	83 mm / 3,27"	87 mm / 3,42"
	D	130 x 185 mm / 5,1 x 7,3"	150 x 220 mm / 5,9" x 8,7"	150 x 220 mm / 5,9" x 8,7"	156 x 225 mm / 6,15" x 8,86"

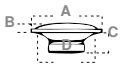
UPGRADE YOUR SOUND SYSTEM

Upgrade your factory-installed system! You won't see the difference - you'll hear it.

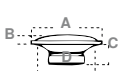
The speakers are designed with the same care as all other DLS speakers. The special low-profile tweeter has a design that fits most car's standard speaker receptacles. The crossover is integrated with the speaker.

These coaxial speakers are available in six sizes: 4", 5.25", 6.5", 5x7", 6x9" and 7x10". Despite the somewhat simpler configuration, this series sounds remarkably good in relation to its price.

PERFORMANCE COAXIAL

MODEL		125	126	1269 (2-WAY COAXIAL)	269 (3-WAY COAXIAL)
BASS		5,25" (13 cm)	6,5" (16,5 cm)	6 x 9"	6 x 9"
TWEETER		16 mm / 0,63"	16 mm / 0,63"	50 mm / 2"	16/50 mm / 0,63"/2"
POWER		50 W RMS / 80 W MAX	50 W RMS / 80 W MAX	60 W RMS / 120 W Max	80 W RMS / 120 W Max
SENSITIVITY		92 dB	92 dB	92 dB	92 dB
MAGNET		70 mm / 2,75"	80 mm / 3,15"	80 mm / 3,15"	100 mm / 3,94")
	A	130 mm / 5,12"	165 mm / 6,5"	185 x 249 mm / 7,3" x 9,8"	185 x 249 mm / 7,3" x 9,8"
	B	20 mm / 0,8"	20 mm / 0,8"	29 mm / 1,14"	29 mm / 1,14"
	C	50 mm / 1,97"	58 mm / 2,28"	75 mm / 3"	80 mm / 3,15"
	D	120 mm / 4,72"	145 mm / 5,7"	150 x 220 mm / 5,9 x 8,7"	150 x 220 mm / 5,9" x 8,7"

PERFORMANCE COAXIAL

MODEL		224 (2-WAY COAXIAL)	225 (2-WAY COAXIAL)	226 (2-WAY COAXIAL)	257 (2-way coaxial)
BASS		4" (10 cm)	5,25" (13 cm)	6,5" (16,5 cm)	5 x 7"
TWEETER		16 mm / 0,63"	16 mm / 0,63"	16 mm / 0,63"	16 mm / 0,63"
POWER		50 W RMS / 80 W Max	50 W RMS / 80 W Max	50 W RMS / 80 W Max	50 W RMS / 80 W Max
SENSITIVITY		93 dB	92 dB	92 dB	92 dB
MAGNET		70 mm / 2,75"	80 mm / 3,15"	80 mm / ,15"	80 mm / 3,15"
	A	100 mm / 3,94"	130 mm / 5,12"	165 MM / 6.5"	138 x 195 mm / 5,4" x 7,7"
	B	18 mm / 0,71"	20 mm / 0,8"	20 mm / 0,8"	20 mm / 0,8"
	C	50 mm / 1,97"	45 mm / 1,77"	52 mm / 2"	60 mm / 2,36"
	D	102 mm / 4"	120 mm / 4,72"	145 mm / 5,7"	130 x 185 mm / 5,1" x 7,3"

Performance amplifiers, previously called CLASSIC amplifiers, made for the broad public that wants to improve the car sound in any installation.

They can be used together with most factory installed car stereo equipment thanks to the advanced high level input circuitry. They are good sounding with features that are sufficient for the normal user. A modern slim design makes them fit into most cars.

The Performance amplifiers are able to deliver the highest power peaks without distortion or dynamic loss, equipped with powerful bipolar transistors.

CAD11- 1 kW MONO BLOCK
The CAD 11 is a digital mono amplifier made for subwoofer use. It delivers a nominal output of 400 Watts in 4 ohm, 750 Watts in 2 ohm and 1050 Watts in 1 ohm speaker load. Low-pass and subsonic filters are built-in. A phase control continuously variable from 0-180 degrees helps you get the perfect bass. Adjustable bass boost feature. With the remote control you can adjust the level from your front seat. A built-in fan prevents overheating.
Two CAD11 can be connected in bridge mode with an output power of 2 kilowatt.

CAD15 -1,6 kW MONO BLOCK
The CAD15 has the same features as CAD11 but with a higher power output. It delivers a nominal 550 Watts in 4 ohm, 900 Watts in 2 ohm and 1600 Watts in 1 ohm speaker load.
Two CAD15 connected in bridge mode gives up to 3,2 kilowatt output power.

CA 22 - TWO CHANNELS
The CA 22 is a small but powerful amplifier with a nominal output of 2 x 60 Watts. With a mono bridge-connection, it puts out all of 200 Watts. Built-in low pass filter for subwoofers and a variable high pass filter. Has also a high level input.

CA 23 - TWO CHANNELS
The CA 23 with a nominal output of 2 x 135 Watts. With a mono bridge-connection, it puts out all of 400 Watts. Built-in low pass filter for subwoofers, variable between 50 and 500 Hz. Bass boost control from 25 Hz - 80 Hz, 0- +18 dB. Has also a high level input.

CA 31 - THREE CHANNELS
The CA 31 is a three channel amplifier with a nominal output of 2 x 65 Watts + 1 x 170 Watts in 4 ohm load (2 x 90 W +1 x 280 W in 2 ohm). Built-in high-pass, low-pass and subsonic filters. Variable phase control on sub channel. Has also a high level input.

CAT 31 - 24 VOLT TRUCK AMPLIFIER
The CAT 31 is a three channel amplifier similar to CA31 but made for 24 Volt use in trucks and busses. Gives a nominal output of 2 x 90 Watts + 1 x 170 Watts in 4 ohm load. The amplifier is one ohm stable. It has the same filter setup as CA31. Has also a high level input.

CA 41 - FOUR CHANNELS
The CA 41 is a powerful amplifier with a nominal output of 4 x 70 Watts. With a mono bridge-connection, it puts out all of 200 Watts. Built-in/switchable low and high pass filters. Bass boost 25 Hz - 80 Hz, 0-18 dB. Has also a high level input.

CA 51 - FIVE CHANNELS
The CA 51 is an amplifier suitable for in-car entertainment systems. Nominal output of 4 x 50 Watts + 1 x 170 Watts on a mono sub channel. Variable phase control, 0-180 degrees, on sub channel. Built-in low-pass and high-pass filters. Has also a high level input.

CA 12 - 500 W MONO BLOCK
The Classic CA 12 is a mono amplifier with a nominal output of up to 500 Watts in 1 ohm load. Variable low pass and subsonic filters for subwoofers are built-in. A variable phase control, 0-180 degrees, plus a high level input with auto start function.

BUILT-IN FILTERS
All models have built-in cross-over filters that make them easy to use as subwoofer amplifiers, for example.

The filters used on the respective amplifier types are seen in the specifications table.

HIGH INPUT
The high input is used for factory installed car stereo head units without RCA pre-outs.

Connect directly to the rear speakers. Automatic turn on when using high level input. You do not have to use the remote wire connection.

This feature comes with all amplifier models in this series.

BASS BOOST
Bass Boost is used to increase the bass volume at an interval of bass frequencies.

You can select the centre frequency between 25 Hz and 80 Hz and the amplification between 0 dB (no amplification) and +18 dB (full amplification). This function is used to compensate for the bass box function and to adjust for your own taste of bass. It is included in CA23 and CA41 models.

CAD11 and CAD15 has also a bass boost function variable from 0 - +18 dB at 45 Hz centre frequency.

VARIABLE PHASE CONTROL
CA12, CA31, CAT31, CA51, CAD11 and CAD15 models include a variable phase shift control on the sub channel. This control helps you to get best possible front stage imaging from your subwoofer.

TWO AMPLIFIERS BRIDGED
The CAD11 and CAD15 models can be used in bridge mode. Two CAD 11 bridged together gives an output of 2 kilowatts, and two CAD15 bridged gives a total output of 3,2 kilowatts, that's what we call high power!
Remote bass level control for CAD11 / CAD15.

DLS PERFORMANCE	CAD 11	CAD15	CA12
Number of channels	1	1	1
Amplifier class	D (digital)	D (digital)	AB
Power output in 4 ohm (0,2% THD)	1 x 400 W	1 x 550 W	1 x 220 W
Power output in 2 ohm (0,2% THD)	1 x 750 W	1 x 900 W	1 x 400 W
Power output in 1 ohm (0,5% THD)	1 x 1050 W	1 x 1600 W	1 x 500 W
All power ratings at 13,8 Volt			
Signal to noise ratio, A-weighted	>100 dB	>100 dB	>100 dB
Damping factor	>100	>100	>100
Frequency response	15 Hz - 160 Hz	15 Hz - 160 Hz	10 Hz - 35 kHz
Input impedance	10 kohms	10 kohms	10 kohms
Input impedance, high level	100 ohms	100 ohms	100 ohms
High level input with auto start	Yes	Yes	Yes
Input sensitivity	0,15 - 5 V	0,15 - 5 V	0,25 - 5 V
Phase control continuous	0 - 180 degrees	0 - 180 degrees	0 - 180 degrees
Remote bass level control	yes	yes	-
Bass boost adjustable gain @ 45 Hz	0 - +18 dB	0 - +18 dB	-
Filter subsonic, 24 dB slope	15-50 Hz variable	15-50 Hz variable	15 - 150 Hz variable
Filter low pass 24 dB slope	15 - 150 Hz variable	15 - 150 Hz variable	50 - 500 Hz variable
Bridge mode master/slave selector	yes	yes	-
Built-in fan cooling	yes	yes	Yes
Power consumption, idle / max	1,5 A / 120 A	2 A / 160 A	0,8 A / 60 A
Fuse	4 x 30 A	4 x 40 A	2 x 30 A
Dimensions (mm)	70 x 444 x 268	70 x 473 x 268	70 x 312 x 268
Dimensions (inch)	2,92 x 17,48 x 10,55	2,92 x 18,62 x 10,55	2,92 x 12,28 x 10,55
Weight	5,8 kg / 12,79 lb	6,4 kg / 14,33 lb	3,8 kg / 8,4 lb

Filter configuration CA 41 & CA 51
Channel A & B
Highpass 15 - 500 Hz*
Lowpass 50(500) - 500(5k) Hz*
(x 10 switch)
Channel C & D
Highpass 15(150) Hz - 500(5k) Hz*
(x 10 switch)
Channel E (CA51 only)
Lowpass 60 Hz - 120 Hz
Subsonic fixed 25 Hz*
*can be switched in / out

ACCESSORIES

If you want to improve the look of your installation there are two useful accessories:

1. A connecting link to put between amplifiers when you mount them together.

2. An end cover to put as a cable protection on the amplifier side.

DLS PERFORMANCE R.M.S. Power output at 13,8 Volts, 20 Hz - 20 kHz, all channels driven:	CA 22	CA 23	CA 31	CAT 31 24 VOLT	CA 41	CA 51
Number of channels	2	2	3	3	4	5
Power output in 4 ohm (0,1% THD)	2 x 60 W	2 x 135 W	2 x 65 W + 1 x 170 W	2 x 75 W + 1 x 170 W	4 x 70 W	4 x 50 W + 1 x 170 W
Power output in 2 ohm (0,2% THD)	2 x 100 W	2 x 200 W	2 x 90 W + 1 x 280 W	2 x 145 W + 1 x 280 W	4 x 125 W	4 x 80 W + 1 x 225 W
Power output in 1 ohm (0,5% THD)				2 x 210 W + N/A		
Power output 4 ohm bridged	1 x 200 W	1 x 400 W	1 x 170 W	1 x 280 W	2 x 200 W	2 x 150 W
Signal to noise ratio, A-weighted	>100 dB	>100 dB	>100 dB	>90 dB	>100 dB	>100dB
Damping factor	>100	>100	>100	>100	>100	>100
Frequency response	10 Hz - 35 kHz	10 Hz - 35 kHz	10 Hz - 35 kHz		10 Hz - 35 kHz	10 Hz - 35 kHz
Input impedance, low level	>10 kohms	>10 kohms	>10 kohms	10 Hz - 35 kHz	>10 kohms	>10 kohms
Input impedance, high level	100 ohms	100 ohms	100 ohms	100 ohms	100 ohms	100 ohms
High level input with auto start	yes	yes	yes	yes	yes	yes
Low output	yes	yes	-	-	yes	-
Input sensitivity	0,25 - 5 V	0,25 - 5 V	0,25 - 5 V	0,25 - 5 V	0,25 - 5 V	0,25 - 5 V
Gramd bass adjustable frequency	-	25 Hz - 80 Hz	-	-	25 Hz - 80 Hz	-
Grand bass adjustable gain	-	0 - 18 dB	-	-	0 - 18 dB	-
Phase control continous	-	-	0-180 degrees	0-180 degrees	-	0-180 degrees
Filter high pass / subsonic	15 - 500 Hz*	15 - 150 Hz*	15 - 150 Hz* / Yes, 25 Hz*	50 - 150 Hz* / Yes, 25 Hz*	see spec.	see spec.
Filter low pass	50 - 500 Hz*	50 - 500 Hz*	50 - 120 Hz	50- 120 Hz, 24 dB slope	see spec.	see spec.
*can be switched in/out				**NOTE! For 24 volt use**		
POWER CONSUMPTION						
Idle / max	0,5 A / 25 A	0,7 A / 60 A	1,0 A / 60 A	0,7 A / 40 A	0,7 A / 60 A	1,0 / 90 A
fuses	1 x 25 A	2 x 30 A	2 x 30 A	2 x 20 A	2 x 30 A	3 x 30 A
Dimensions (mm)	70 x 230 x 268	70 x 312 x 268	70 x 357 x 268	70 x 357 x 268 mm	70 x 372 x 268	70 x 437 x 268
Dimensions (inch)	2,92 x 9,06 x 10,55	2,92 x 12,28 x 10,55	2,92 x 14,06 x 10,55	2,92 x 14,06 x 10,55	2,92 x 14,65 x 10,55	2,92 x 17,2 x 10,55
Weight	2,7 kg / 6,2 lb	3,6 kg / 7,9 lb	4 kg /9,2 lb	4 kg / 9,2 lb	4,2 kg / 9,3 lb	5 kg / 11 lb

THE LIME ONE

Photo by Per Söder

THE GALAXY

Photo by Jake Seles

SOME HINTS ON HOW TO MAKE GOOD SQ-INSTALL

Take your time to plan your install. What you want to achieve, how to design the install, etc. Look at other people's installs, at events or on the web, and create your own vision on how your install should look like. Be inspired of many others and you can create something good of your own.

Look for quality

Go for quality. It's better to buy a few good products, than a lot of cheap stuff that perhaps only disappoint you later.

Say goodbye to carton boxes!

It's important with a rigid mounting of all components of the system, especially the speakers. If you use original factory panel for mounting of speakers, try to strengthen it with a MDF- or metal-ring. Also enclosures must be stiff. It should not sound like a "carton-box" when you knock on it. Try to fix of all vibrating parts of the interior. Use damping material if necessary.

The front system

To achieve a good soundstage it's my opinion that a 2- or 3-way front system with the midrange speakers mounted on the dashboard is the best. The high position of the midrange is needed for a high and stable soundstage. The tweeters are often best mounted in the A-pillar facing each other, or pointed towards the listening position. The best way is to try with the tweeters loose as they are easy to move around. Try what's best is your actual car!

What type of subwoofer-box to choose also depends on the car, but a sealed or vented box works in most cases and they are the easiest to build. The size of the box is very important. Look at the recommendation that comes with the woofer.

Time alignment

To make the soundstage accurate on the driver's seat is in most cases necessary with time-alignment and it's nowadays available at affordable prices. Time alignment is needed since the distance to the speakers varies from left and right side of the car. This causes that the sound reaches the ear at different moments in time and the soundstage could sound diffuse.

Wires and power

Don't forget to be careful with the wiring and the power. Be sure to have a good battery and an alternator that is big enough for the install. The positive-cable from battery to the system should be routed away from other cables to avoid noise. Be sure that all cables have the appropriate size and are fused properly.

More tips and tricks?

Take a look at my homepage: http://bilstereo.just.nu

It describes step-by-step how the install is made in my car. It's a very good source for inspiration.

Per Söder

The DLS Lime Beetle project

Per Söder's project is called "DLS Lime Beetle – old skool flavored". The project is based on a VW New Beetle Turbo, and it has an advanced sound quality installation with a "hotrod"-theme. The design is retro and clean, inspired by a mix between old and new. The system features premium DLS products, for example the TA2 tube amplifiers and Nobelium speakers. The car won the Expert Sound Only category in the 2006 European championships, and it won the 2007 European championship in Master unlimited category.

Visit Per's homepage for further information and pictures of the installation.

THE SOUND OF THE GALAXY

When we started the Galaxy project the aim was to win the Emma Euro finals and take part of tuning shows. The Galaxy name was chosen because DLS products are known to be super-natural, nearly too good to be from earth. The whole project is made around this theme.

We stripped the car totally naked inside and applied the Dynamat damping mats.
Sound dampening is one of the more important details in order to get real live and dynamic sound in a competition car.

One of our main targets was to get a supernatural image and sound stage. To achieve that we had to custom build a new dashboard. The first dashboard didn't sound perfect, so we made a second one. This dashboard has a unique speaker setup. It has one pair of Nobelium 5" for the midbass, another pair for the midrange, plus an IR-10 subwoofer facing down towards the floor. One pair of Nobelium Nanoplate tweeters were installed inside the side mirrors. The speaker setup is the result of intensive testing and analysing of the acoustical environment inside the Galaxy. This gave us a very detailed sound with great harmony.

The sound system is fully active using an Alpine F1 head unit and processor (a fully active systems means that no passive crossovers are used to the speakers).
The fantastic sounding tube amplifier TA-2 was used for tweeters and midrange, the A-3 for midbass and the A-6 for the subwoofer.
To get full performance from the amplifiers we installed two high power batteries in the trunk. All the speaker grills, door panels, trunk panels and the steering wheel were custom made.

The Galaxy is not only a sound project; it's also a tuning car. We transformed it to a racing RSI Beetle, front and back bumper, all fenders and spoilers were changed.
Other highlights are the 20 inch chromed wheels, new exhaust system, racing seats and a custom made chromed steering wheel with a sound system remote control. The Galaxy won all tuning competitions it took part in during 2006.
Bye the way, we also won the EMMA Euro finals 2006!

Jaka Seles

EMMA

European Champion EMMA 2006
– **Expert Unlimited**

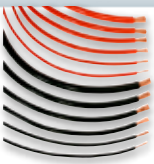
European Champion EMMA 2006
– **Best of Installation**

POWER CABLES

POWER CABLES
This is a key factor for any installation. Power cables that are too light cause voltage drops and keep output stages from working properly.

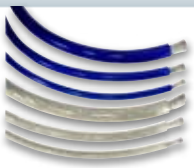
SPEAKER CABLES
A good car stereo system requires good speakers, an amplifier and a head unit. But the cables must also be of high quality to achieve the desired results. This as also true for your home system.

LINE CABLES
Cables for all needs. From simple cables with or without remote up to professional cables for demanding listeners.



POWER CABLE
For professional installations. Soft and flexible oxygen free cable (OFC) with powerful insulation.

RED AND BLACK IN SIZES:
2,5, 6, 10, 16, 21 and 33 mm²
(13, 10, 7, 5, 4 and 2 AWG)



TRANSPARENT POWER CABLE
Soft and flexible oxygen free cable (OFC) with powerful insulation. Thinned strands.

BLUE AND SILVER IN SIZES:
10, 21 and 50 mm²
(7, 4 and 0 AWG)

SPEAKER CABLES

SPEAKER CABLE - SC-TYPE
Low inductance, OFC multipurpose cable for all installations.
AVAILABLE TYPES:
2 x 1,5 mm² (15 AWG)
2 x 2,5 mm² (13 AWG)
2 x 4 mm² (11 AWG)
2 x 1,5 and 2 x 2,5 mm² / also available in white colour.

SPEAKER CABLE - DLS SCP
Flat type low loss speaker cabel reduces the inductance to a minimum. Double insulation.

AVAILABLE TYPES:
2 x 2,5 mm² (13AWG)
2 x 4 mm² (11 AWG)

SPEAKER CABLE - DLS SCK
Speaker cable for the demanding listener. Round with 8 or 16 wires in two colours. Minimizes inductance and EMF. Excellent for high frequencies.
AVAILABLE TYPES:
2 x 1,5 mm² (8 wires)
2 x 3 mm² (16 wires)

SPEAKER CABLE - DLS SCKS
The Ultimate silver line speaker cable for audiophile users. Round with silver plated aluminium strands and Teflon insulation. With 4 or 8 wires in two colours.
AVAILABLE TYPES:
2 x 1 mm² (4 wires)
2 x 2 mm² (8 wires)

DLS HQS
OFC loudspeaker cable for demanding audiophile users. PP insulated conductors, twisted for low inductance and low radiation. The screen makes the cable noise free. Made in Sweden.
AVAILABLE TYPES:
2 x 2.5 mm² in 6 m pack
2 x 2.5 mm² in 50 m rolls

LINE CABLES

LINE CABLE
Shielded signal line cable for standard car audio installations. With remote wire and gold plated connectors.
AVAILABLE TYPES:
SL1DB (1 meters)
SL3DB (3,0 meters)
SL-5DB (5,0 meters)
SL5Q (5,0 meters 4-leads)

PRO - LINE CABLE
Quasi-balanced triple shielded top quality signal line cable. Reduces all kinds of interference and noise from the car. Without remote wire.
AVAILABLE TYPES:
SL-2PRO (2 meters)
SL-5PRO (5 meters)

ULTIMATE BALANCED LINE CABLE
Shielded and balanced high quality cable. Teflon insulated RCA-connectors with looking funciton.

AVAILABLE TYPES:
SL-1 Ultimate (1 m)
SL-3 Ultimate (3 m)
SL-5 Ultimate (5 m)

ULTIMATE SILVER BALANCED LINE CABLE
Balanced double shielded high quality signal line cable with silver plated aluminium conductors. Teflon insulated connectors with locking function.
AVAILABLE TYPES:
SL-5US (5 m)
SL-0,8US (0,8 m)

HQL LINE CABLE
HQL- an interconnect cable made for high class analogue applications. PE foam insulation for low capacitance. Double screened and extremely good frequency properties, owing to it's high velocity factor of 78%. Made in Sweden.
AVAILABLE TYPES:
HQL5 (5,5 m)
HQL1 (1 m)

RCA PHONO CONNECTORS

SIGNAL LINE CABLE

LC2 PRO
Triple shielded stereo cable without remote.

LC3 ULTIMATE
Balanced mono cable with two inner wires and shield.

RCA CONNECTORS ULTIMATE
RCA-male in metal with teflon insulation and locking function. Red and black marking.
In 2-pack.

RCA CONNECTORS PRO
RCA-male or female in metal with teflon insulation.
Highest quality.
Red and black marking.
In 2- or 4-pack.

RCA-female only in 2-pack.

RCA CONNECTORS
RCA-double female.
Pair packing with one red and one black connector.

RCA ANGLED CONNECTORS
RCA angled connectors
RCA-female to male.
Pair packing with one red and one black connector.
Available in two sizes, long or short.

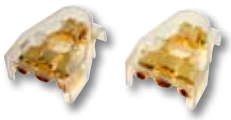
BATTERY TERMINALS

BATTERY TERMINALS BT1+, BT1-
With screw connection for:
2 x 10 mm² (7 AWG) and
a 5/16 screw

PROTECTION CAPS
Plastic insulation caps are
available for BT1.

BATTERY TERMINALS BT2+, BT2-
With screw connection for:
1 x 45 mm² (1 AWG)
1 x 33 mm² (2 AWG)
2 x 10 mm² (7 AWG)

PROTECTION CAPS
Plastic insulation caps are
available for BT2.



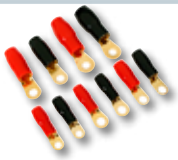
BATTERY TERMINALS BT5+, BT5-
With twist-lock connection for:
1 x 21 mm² (4 AWG)
2 x 10 mm² (7 AWG)

PROTECTION CAP
Transparent hard plastic
is included with BT5+.

BATTERY TERMINALS BT6+, BT6-
With twist-lock connection for:
1 x 42 mm² (1 AWG)
1 x 21 mm² (4 AWG)
2 x 10 mm² (7 AWG)

PROTECTION CAP
Transparent hard plastic
is included with BT6+.

RING TERMINALS & FORK ADAPTORS



RING TERMINALS RT-SERIES
5 different ring terminals in 2- or
4-pack. Extra red insulator in-
cluded. Sizes from 14 - 42 mm²,
(6 AWG - 1 AWG)

RT14-6S RT 14-8S
RT 22-8S RT 38-8S
RT 50-8S

RING TERMINALS HDRT-SERIES
Heavy duty type with screw type cable
connection.
Sizes from 8 - 42 mm², (8 AWG - 1 AWG)

HDRT0
HDRT2
HDRT4
HDRT8

DLS FORK ADAPTORS
For easier cable connections to
amplifier terminals.
Width 8 mm.
For cables up to 10 mm² (7 AWG).

DLS FORK ADAPTORS - CRIMP TYPE
For easier cable connections to amplifier
terminals.
FT-6 handles up to 6 mm² (10 AWG) cable.
FT-10 handles up to 10 mm² (7 AWG) cable.
FT-22 handles up to 22 mm² (4 AWG) cable.
FT-22S with 7,5 mm forkwidth.

HOME AUDIO CABLES

HOME AUDIO CABLES & CONNECTORS
We have a range of cables & connectors
for home Audio:
SCART-cables, 1 or 1,5 mtr.
SCART connectors and cables if you want
to do your own cable.
Digital coaxial cable, 1 mtr.

POWER BLOCKS AND MORE

BATTERY TERMINALS. *Screw-on cable terminals, such as the BT1 and BT2, or twist-lock terminals such as the BT3, BT5 and BT6, all with 24-carat gold plating.*

RING TERMINALS FORK ADAPTORS. *Simpler models for crimp-mounting and heavier gear for higher currents, all plated with pure 24-carat gold.*

POWER BLOCKS AND MORE. *Ensure good contact at all termination points. Bad splices or substandard ground connections cause voltage drops that adversely affect sound. With DLS connection accessories, it's easy to make the right connections! Manufactured in gold-plated solid brass.*

FUSE HOLDERS AND FUSES. *With a surface finish of pure 24-carat gold, these fuse holders and terminals offer very low contact resistance. Gold doesn't oxidize. Besides minimizing voltage losses, this also gives the entire installation a look of elegance.*

POWER BLOCK PB1
Power block without fuse holder.

Connects
2 x 33 mm² (2 AWG)
4 x 10 mm² (7 AWG) cables.

POWER BLOCK
Twist-lock type.
Transparent cover.

PBT2 Connects:
1 x 50 mm² (0 AWG)
5 x 21 mm² (4 AWG) cables.

GROUND CONNECTORS
For easier ground
termination.

Two models:
GC0 for 50/42 mm² (0/1 AWG)
cable.
GC4 for 21 mm² (4 AWG) cable.

CABLE SPLICER
Twist-lock type. For splicing two
cables. With transparent
shrinking tubing.

CS 0-0 (33/22-33/22 mm²)
CS 0-4 (33/22-16/10 mm²)
CS 4-8 (16/10-16/10 mm²)

FUSE HOLDERS AND FUSES

FUSE HOLDER FH1
For AGU glass fuses.
5 - 80 A.
FH1B with twist-lock cable
connection.
Max cable size 21 mm2
(4 AWG).

FUSE HOLDER FH2B
Twist-lock.
For ANL-fuses 60-250 A. Max
cable size 50 mm2 (1/0 AWG).
Watertight with gasket rings.

CIRCUIT BREAKERS
Automatic circuit breakers with
reset and test button. Plastic
protection cap included.

ACB 70, 70 Amps
ACB 100, 100 Amps

FUSE BLOCKS
Gold plated fuse blocks
for AGU-fuses.
FB 1 for 2 fuses, 1 in -1 out
FB 2 for 2 fuses
FB 3 for 3 fuses
FB 4 for 4 fuses
Connects:
In: 3 x 33 mm² (2 AWG)
Out: 2/3/4 x 16 mm² (5 AWG)
cables.

ANL - FUSES
Gold plated high-current fuses
for FH-2B.

Fuse values:
60A, 100A, 150A,
200A and 250A.

AGU - FUSES
Gold plated fuses
10 x 38 mm.

Fuse values:
5A, 10A, 25A, 40A, 50A,
60A, 70A and 80A.

DLS POWER CAPS

A Power Cap capacitor serves as an energy reserve so that the amplifier can get the power it needs for larger current outputs, such as for powerful bass attacks.

Bass reproduction in a sound system is dependent on the amplifier always getting the current it needs. The bass tones would otherwise be weak and labored, lacking real bite. A DLS Power Cap quickly supplies the amplifier with the extra current it needs.

DLS Power Cap and heavy-duty power cables let you experience an entirely new dimension in bass sound.

Another advantage with the Power Cap is that it functions as a filter capacitor to help effectively filter away interference from the car alternator. Provided with mounting brackets and a charging resistor.

	CAP-50	**CAP-100**	**CAP-150**
Capacitance	0,5 Farad	1 Farad	1,5 Farad
Max voltage	20 DVCV	20 DCV	20 DCV
Tolerance	-10%+50%	-10%+50%	-10%+50%
Max. temp.	95°C	95°C	95°C
Size (mm)	75x142	75x216	75x216

All capacitors comes in both black and chromed design.
1 Farad also in platinum design.

Extra brackets and Link 2 for connecting together capacitors are useful accessories.

BASS PORTS / VENTS

CONICAL PORTS

Ports with sharp edges causes turbulence around the port openings. This will make some noise at low frequencies. The air passes more easily through a conical port opening.

Advantages with DLS conical ports:

- Less risk for port noise
- Lower air flow resistance
- Neat and easy mounting
- Lower distortion

BP-75 3" (75mm) bass port kit with 2 conical ports and a 40 cm black plastic tube to be cut to desired length. Inner diameter 68 mm.

BP-FLEXI 75 is the same as above but with a 41 cm flexible tube for easier installation of long ports in small boxes.

BP-110 4" (10 cm) bass port kit with 2 conical ports and a 40 cm black plastic tube to be cut to desired length. Inner diameter 103 mm.

BP-FLEXI 110 with a 41 cm flexible tube for easier installation of long ports in small boxes.

ENCLOSURES

BBM 20 / BBM 25 / BBM 30
Sealed 10" & 12" enclosures
BPM 26 / BPM 32
Vented 10" & 12" enclosures
Models:
BBM 20, 20 litres, for 10"
BBM 25, 25 litres, for 10"
BBM 30, 30 litres, for 12"
BPM 26, 26 litres, for 10"
BBM 32, 32 litres, for 12"

SPRAY GLUE

High quality glue for felt cloth and imitation leather. 500 ml

GRILLES FOR SUBWOOFERS

METAL GRILLES in sizes from 8" to 15" with a separate mounting ring.
PLASTIC GRILLES in sizes 10", 12" and 15".
The plastic grilles SG10 & SG12 fits all of our 10" and 12" subwoofers.
RG10 & RG12 are new grilles for the RW10 & RW12 subs.

SPEAKER BOX TERMINALS

SBC-02 2-POLE ROUND TYPE
Outer diameter: 105 mm.
Mounting hole: 76 mm.

SCB-04 4-POLE SQUARE TYPE
Outer size: 119 x 92 mm.
Mounting hole: 95 x 73 mm.
With jumpers.

DUAL BANANA PLUGS

For speaker terminals 2-pole plug for SBC - 02 and SBC - 04.
For cables up to 2,5 mm².

COOLING FANS

Used for external amplifier cooling. 12 V DC.
Two models:
40x40 and 80x80 mm.
Protection grilles are accessories.

FELT CLOTH

TRUNKLINER
Suitable for speaker boxes,rear shelves or as interior mat in any car. High quality with good stretching qualities. Use spray glue for best result. Width 137 cm, 10 m per roll.
Colours: Black, Grey-black, Medium gray, Light grey
CLASSIC
Width 133 cm,10 m per roll. Colours: Black, Grey-black and Light grey.

IMITATION LEATHER

Imitation leather for car interiors, speaker boxes, door-sides etc. Use spray glue for best result.
Pieces: 100 x 140 cm in a plastic bag.
5 m rolls, width 140 cm.
Colours: Black, Dark grey, Grey, Dark blue, Beige, Bourgundy, Mint green, Pink.

SPEAKER CLOTH

Thin and elastic sound transparent speaker cloth for speaker baffles.
Size 90 x 120 cm (35" x 47")

Colours:
Black, Dark grey, Light grey

MAX DAMPER

DLS MAX DAMPER
A super efficient asphalt damping mat for vehicles. Used to dampen resonances on steel surfaces. Improves sound quality.
Size & more:
600 x 1000 mm (23" x 39")
Thickness : 2 mm (+- 0,3)
Weight : 2 kg

DAMPING

DAMPING WOOL of polyester fibre in 500 gram packing.

DAMPING MAT of 3-layer synthetic polyester fibre with good damping qualities. 100 x 130 cm (39" x 51") pieces or 30 meter rolls.

STABILIZING RINGS

2,5 mm steel rings – 6,5" / 165 mm
Use them for a more stable installation with improved sound quality.

CABLE KITS FOR AMPLIFIERS

200 Watt cable kit
6 meters power cable AWG10 (6 mm)
ATC fuse holder with 30A fuse
1 meter ground cable AWG10
RCA interconnect cable with remote, 5 meters
Ring terminals for battery and ground connection
Cable ties, 10pcs

350 Watt cable kit
6 meters power cable AWG8 (10 mm)
AGU fuse holder with 40A fuse
Split loom tumbing
1 meter ground cable AWG8
RCA interconnect cable with remote, 5 meters
Ring terminals for battery and ground connection
Cable ties, 10 pcs

DLS STICKERS

PERFORMANCE BY DLS.
Cut out sticker – 63 x 15 cm (24,8" x 5,9").
DLS SUPERNATURALSOUND.
Cut out sticker – 26 x 5 cm (10,2" x 2").
WWW.DLS.SE
Cut out sticker – 50 x 6 cm (19,7" x 2,36")
DLS.
Round logo sticker – 50 mm

DLS CLOTHES

Winter jacket, black
in sizes M, L, XL, XXL, XXXL

Winter jacket, beige
in sizes M, L, XL, XXXL

Polo T-shirt in Audio for life collection
in sizes S, M, L, XL, XXL.

Summer jacket grey/black in Audio for Life collection
in sizes S, M, L, XL, XXL, XXXL

DLS CLOTHES

T-shirt, black, with short sleeves
in sizes M, L, XL, XXL

Hood jacket in Audio for Life collection with DLS embroidery
in sizes S, M, L, XL, XXL

T-shirt in Audio for life collection with short sleeves
in sizes S, M, L, XL, XXL

Cap in Audio for life collection
one size

HOME AUDIO

THE M AND R-SERIES

"M" AS IN MUSIC! The M-series are DLS most advanced high end speakers. They're built for stability and dynamics, down to the smallest micro detail. The drivers use a very advanced magnetic system and aluminium diaphragms damped by an innovative dust cap, combined with low weight aluminium voice coils and a cast basket.

THE EXCEPTIONAL PERFORMANCE of R-series speakers is a result of advanced speaker-design skills and unique driver technology. The low-mid unit has a lightweight cone made of non-compress paper, which provides a natural bass and a very clear and detailed midrange. It meets the 28 mm dome tweeter well and presents an uncoloured high midrange and a distinct high-end performance.

THE D AND T-SERIES

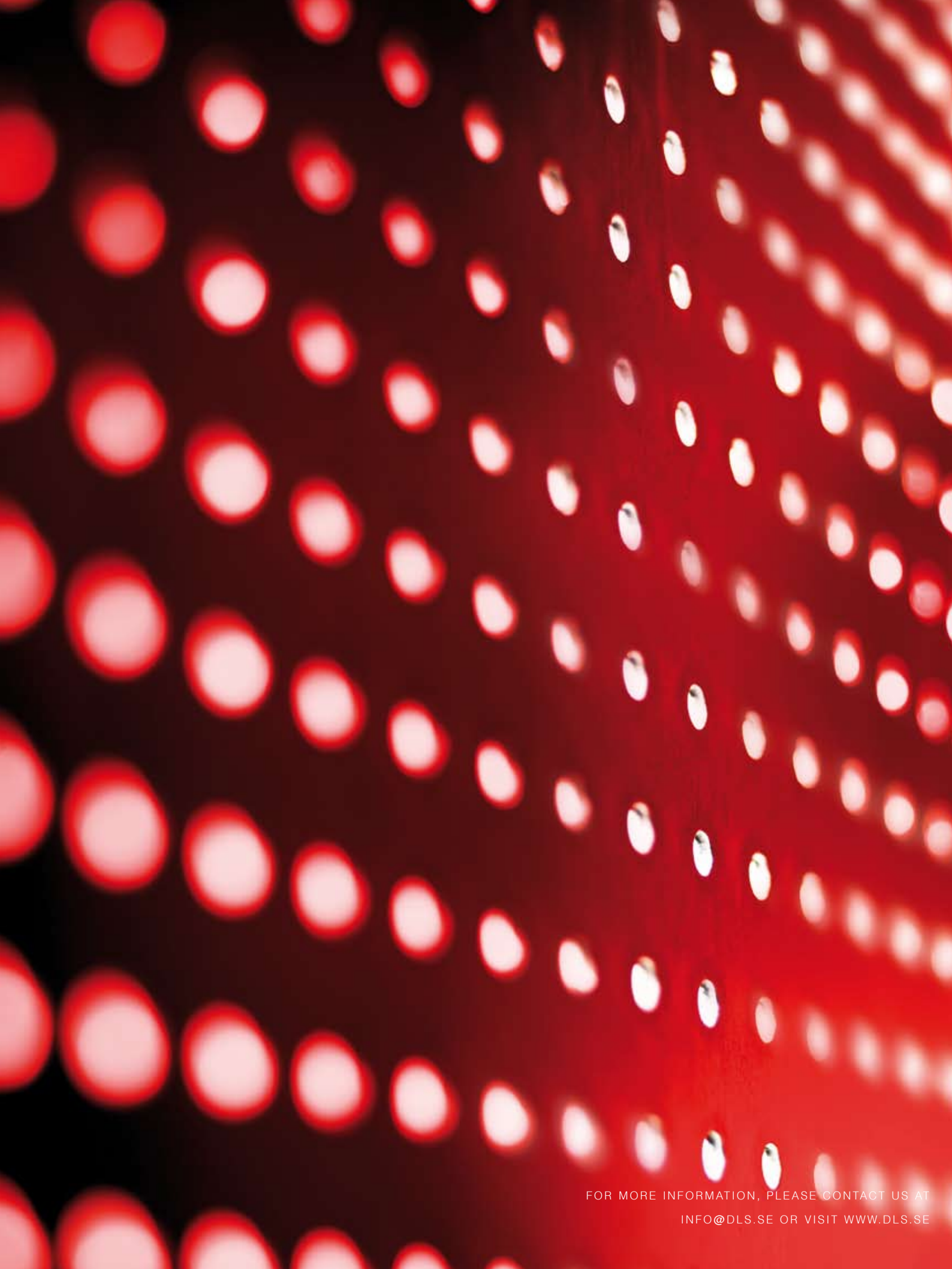
CREATED FOR THOSE WHO LOVE both music and movies. Their slim shape and modern design fits them nicely in almost any living room. Preferably beside a nice, flat, wall TV. Flexible systems with fully integrated sound characteristics, allowing you to choose exactly the speaker size to suit you. It won't matter if you have the latest 7.1 home cinema or simply your favourite listening armchair set aside in the corner for lazy afternoons with your record collection for company.

OFF THE FLOOR SPEAKERS

DLS IN-WALL & ON-WALL SPEAKERS are easy to install and you'll get excellent DLS sound wherever you want. Install a pair on each side of your 42" plasma screen, or as satellites behind you. Or let them provide a pleasant sound background in your kitchen or bathroom. You won't be disappointed!
The speakers can also be used for sound in public places, such as in a supermarket or your office.

FOR MORE DETAILED INFORMATION
ABOUT DLS HOME AUDIO SPEAKERS,
ORDER THE DLS HOME AUDIO BROCHURE
OR VISIT OUR WEB-SITE

WWW.DLS.SE



FOR MORE INFORMATION, PLEASE CONTACT US AT
INFO@DLS.SE OR VISIT WWW.DLS.SE